



5

SEQUENCE LISTING

<110> Makowski, Lee
Hyman, Paul
Williams, Mark

<120> STAGED ASSEMBLY OF NANOSTRUCTURES

<130> 8471-010-999

<140> 10/080,608

<141> 2002-02-21

<160> 180

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 28

<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 1

Met	Lys	Gln	Leu	Glu	Asp	Lys	Val	Glu	Glu	Leu	Leu	Ser	Lys	Asn	Tyr
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His	Leu	Glu	Asn	Glu	Val	Ala	Arg	Leu	Lys	Lys	Leu				
			20					25							

<210> 2

<211> 28

<212> PRT

<213> Unknown

<220>

<223> Probable variant of homo sapiens protein.

<400> 2

Thr	Asp	Thr	Leu	Gln	Ala	Glu	Thr	Asp	Gln	Leu	Glu	Asp	Glu	Lys	Tyr
1				5				10						15	
Ala	Leu	Gln	Thr	Glu	Ile	Ala	Asn	Leu	Leu	Lys	Glu				
			20					25							

<210> 3

<211> 28

<212> PRT

<213> Unknown

<220>

<223> Probable variant of homo sapiens protein.

<400> 3

Ala	Ala	Arg	Leu	Glu	Glu	Lys	Val	Lys	Thr	Leu	Lys	Ala	Gln	Asn	Tyr
1				5				10						15	
Glu	Leu	Ala	Ser	Thr	Ala	Asn	Met	Leu	Arg	Glu	Gln				
			20					25							

<210> 4

<211> 35

<212> PRT

<213> Mus musculus

<400> 4

Val	Leu	Glu	Thr	Gln	His	Lys	Asn	Glu	Arg	Leu	Thr	Ala	Glu	Val	Glu
1				5				10					15		
Gln	Leu	Gln	Lys	Lys	Leu	Ser	Thr	Leu	Ser	Arg	Glu	Phe	Lys	Gln	Leu
			20					25					30		
Arg	Asn	Leu													
		35													

<210> 5

<211> 35

<212> PRT

<213> Homo sapiens

<400> 5

Cys	Lys	Glu	Leu	Thr	Gly	Glu	Asn	Glu	Ala	Leu	Glu	Lys	Lys	Ala	Asp
1				5				10						15	
Ser	Leu	Lys	Glu	Arg	Ile	Gln	Tyr	Leu	Ala	Lys	Glu	Ile	Glu	Glu	Val
			20					25					30		
Lys	Asp	Leu													
		35													

<210> 6

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 33

<223> Xaa = Any Amino Acid

<400> 6

Cys	Gly	Gly	Val	Gln	Ala	Glu	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp
1				5				10						15	
Leu	Leu	Arg	Lys	Arg	Arg	Glu	Gln	Leu	Lys	His	Lys	Leu	Glu	Gln	Leu
			20					25					30		
Xaa															

<210> 7

<211> 33

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 33

<223> Xaa = Any Amino Acid

<400> 7

Cys	Gly	Gly	Met	Arg	Arg	Lys	Asn	Asp	Thr	His	Gln	Gln	Asp	Ile	Asp
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Asp	Leu	Lys	Arg	Gln	Asn	Ala	Leu	Leu	Glu	Gln	Gln	Val	Arg	Ala	Leu
			20					25					30		
Xaa															

<210> 8

<211> 32
 <212> PRT
 <213> Unknown
 <220>
 <223> Probable variant of Mus musculus protein

<400> 8
 Val Lys Ser Leu Glu Asn Arg Val Ala Val Leu Glu Asn Gln Asn Lys
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 Thr Leu Ile Glu Glu Leu Lys Ala Leu Lys Asp Leu Tyr Ser His Lys
 20 25 30

<210> 9
 <211> 33
 <212> PRT
 <213> Schizosaccharomyces pombe

<400> 9
 Val Val Thr Leu Lys Glu Leu His Ser Ser Thr Thr Leu Glu Asn Asp
 1 5 10 15
 Gln Leu Arg Gln Lys Val Arg Gln Leu Glu Glu Glu Leu Arg Ile Leu
 20 25 30
 Lys

<210> 10
 <211> 885
 <212> PRT
 <213> Mus musculus

<400> 10
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 Thr Ser Thr Pro His Ser Lys Asp His Ser Ser Pro Phe Tyr Ser Pro
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 Ser His Asn Gly Leu Leu Ala Asp His His Glu Ser Leu Asp Asn Asp
 35 40 45
 Val Ala Arg Glu Ile Gln Tyr Leu Asp Glu Val Leu Glu Ala Asn Cys
 50 55 60
 Cys Asp Ser Ser Val Asp Gly Thr Tyr Asn Gly Ile Ser Ser Pro Glu
 65 70 75 80
 Pro Gly Ala Ala Ile Leu Val Ser Ser Leu Gly Ser Pro Ala His Ser
 85 90 95
 Val Thr Glu Ala Glu Pro Thr Glu Lys Ala Ser Gly Arg Gln Val Pro
 100 105 110
 Pro His Ile Glu Leu Ser Arg Ile Pro Ser Asp Arg Met Ala Glu Gly
 115 120 125
 Glu Arg Ala Asn Gly His Ser Thr Asp Gln Pro Gln Asp Leu Leu Gly
 130 135 140
 Asn Ser Leu Gln Ala Pro Ala Ser Pro Ser Ser Thr Ser Ser His
 145 150 155 160
 Cys Ser Ser Arg Asp Gly Glu Phe Thr Leu Thr Thr Leu Lys Lys Glu
 165 170 175
 Ala Lys Phe Glu Leu Arg Ala Phe His Glu Asp Lys Lys Pro Ser Lys
 180 185 190
 Leu Phe Glu Glu Asp Glu Arg Glu Lys Glu Gln Phe Cys Val Arg Lys
 195 200 205
 Val Arg Pro Ser Glu Glu Met Ile Glu Leu Glu Lys Glu Arg Arg Glu
 210 215 220
 Leu Ile Arg Ser Gln Ala Val Lys Lys Asn Pro Gly Ile Ala Ala Lys
 225 230 235 240

Trp Trp Asn Pro Pro Gln Glu Lys Thr Ile Glu Glu Gln Leu Asp Glu
 245 250 255
 Glu His Leu Glu Ser His Arg Arg Tyr Lys Glu Arg Lys Glu Lys Arg
 260 270
 Ala Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln Gln Leu
 275 280 285
 Gln Gln Gln Gln Leu Gln Gln Gln Gln Leu Gln Gln Gln Leu Gln
 290 295 300
 Gln Gln Leu Gln Gln Gln Gln Leu Ser Thr Ser Gln Pro Cys Thr Ala
 305 310 315 320
 Pro Ala Ala His Lys His Leu Asp Gly Ile Glu His Thr Lys Glu Asp
 325 330 335
 Val Val Thr Glu Gln Ile Asp Phe Ser Ala Ala Arg Lys Gln Phe Gln
 340 345 350
 Leu Met Glu Asn Ser Arg Gln Thr Leu Ala Lys Gly Gln Ser Thr Pro
 355 360 365
 Arg Leu Phe Ser Ile Lys Pro Tyr Tyr Lys Pro Leu Gly Ser Ile His
 370 375 380
 Ser Asp Lys Pro Pro Thr Ile Leu Arg Pro Ala Thr Val Gly Gly Thr
 385 390 395 400
 Leu Glu Asp Gly Gly Thr Gln Ala Ala Lys Glu Gln Lys Ala Pro Cys
 405 410 415
 Val Ser Glu Ser Gln Ser Ala Gly Ala Gly Pro Ala Asn Ala Ala Thr
 420 425 430
 Gln Gly Lys Glu Gly Pro Tyr Ser Glu Pro Ser Lys Arg Gly Pro Leu
 435 440 445
 Ser Lys Leu Trp Ala Glu Asp Gly Glu Phe Thr Ser Ala Arg Ala Val
 450 455 460
 Leu Thr Val Val Lys Asp Glu Asp His Gly Ile Leu Asp Gln Phe Ser
 465 470 475 480
 Arg Ser Val Asn Val Ser Leu Thr Gln Glu Glu Leu Asp Ser Gly Leu
 485 490 495
 Asp Glu Leu Ser Val Arg Ser Gln Asp Thr Thr Val Leu Glu Thr Leu
 500 505 510
 Ser Asn Asp Phe Ser Met Asp Asn Ile Ser Asp Ser Gly Ala Ser Asn
 515 520 525
 Glu Thr Thr Ser Ala Leu Gln Glu Asn Ser Leu Ala Asp Phe Ser Leu
 530 535 540
 Pro Gln Thr Pro Gln Thr Asp Asn Pro Ser Glu Gly Arg Glu Gly Val
 545 550 555 560
 Ser Lys Ser Phe Ser Asp His Gly Phe Tyr Ser Pro Ser Ser Thr Leu
 565 570 575
 Gly Asp Ser Pro Ser Val Asp Asp Pro Leu Glu Tyr Gln Ala Gly Leu
 580 585 590
 Leu Val Gln Asn Ala Ile Gln Gln Ala Ile Ala Glu Gln Val Asp Lys
 595 600 605
 Ala Glu Ala His Thr Ser Lys Glu Gly Ser Glu Gln Gln Glu Pro Glu
 610 615 620
 Ala Thr Val Glu Glu Ala Gly Ser Gln Thr Pro Gly Ser Glu Lys Pro
 625 630 635 640
 Gln Gly Met Phe Ala Pro Pro Gln Val Ser Ser Pro Val Gln Glu Lys
 645 650 655
 Arg Asp Ile Leu Pro Lys Asn Leu Pro Ala Glu Asp Arg Ala Leu Arg
 660 665 670
 Glu Lys Gly Pro Ser Gln Pro Pro Thr Ala Ala Gln Pro Ser Gly Pro
 675 680 685
 Val Asn Met Glu Glu Thr Arg Pro Glu Gly Gly Tyr Phe Ser Lys Tyr
 690 695 700
 Ser Glu Ala Ala Glu Leu Arg Ser Thr Ala Ser Leu Leu Ala Thr Gln
 705 710 715 720
 Glu Ser Asp Val Met Val Gly Pro Phe Lys Leu Arg Ser Arg Lys Gln
 725 730 735
 Arg Thr Leu Ser Met Ile Glu Glu Glu Ile Arg Ala Ala Gln Glu Arg

			740					745				750				
Glu	Glu	Glu	Leu	Lys	Arg	Gln	Arg	Gln	Val	Arg	Gln	Ser	Thr	Pro	Ser	
		755					760					765				
Pro	Arg	Ala	Lys	Asn	Ala	Pro	Ser	Leu	Pro	Ser	Arg	Thr	Thr	Cys	Tyr	
	770					775					780					
Lys	Thr	Ala	Pro	Gly	Lys	Ile	Glu	Lys	Val	Lys	Pro	Pro	Pro	Ser	Pro	
785					790					795					800	
Thr	Thr	Glu	Gly	Pro	Ser	Leu	Gln	Pro	Asp	Leu	Ala	Pro	Glu	Glu	Ala	
				805					810						815	
Ala	Gly	Thr	Gln	Arg	Pro	Lys	Asn	Leu	Met	Gln	Thr	Leu	Met	Glu	Asp	
			820					825					830			
Tyr	Glu	Thr	His	Lys	Ser	Lys	Arg	Arg	Glu	Arg	Met	Asp	Asp	Ser	Ser	
	835						840					845				
Tyr	Thr	Ser	Lys	Leu	Leu	Ser	Cys	Lys	Val	Thr	Ser	Glu	Val	Leu	Glu	
	850					855					860					
Ala	Thr	Arg	Val	Asn	Arg	Arg	Lys	Ser	Ala	Ser	Gly	Leu	Ala	Leu	Gly	
865					870					875					880	
Gly	Arg	Asp	Leu	Arg												
				885												

<210> 11
 <211> 3878
 <212> PRT
 <213> Homo sapiens

<400> 11

Met	Glu	Asp	Glu	Glu	Arg	Gln	Lys	Lys	Leu	Glu	Ala	Gly	Lys	Ala	Lys	
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Ile	Glu	Glu	Leu	Ser	Leu	Ala	Phe	Leu	Val	Arg	Gln	Leu	Ala	Gln	Phe	
			20					25					30			
Arg	Gln	Arg	Lys	Ala	Gln	Ser	Asp	Gly	Gln	Ser	Pro	Ser	Lys	Lys	Gln	
		35					40					45				
Lys	Lys	Lys	Arg	Lys	Thr	Ser	Ser	Ser	Lys	His	Asp	Val	Ser	Ala	His	
	50					55					60					
His	Asp	Leu	Asn	Ile	Asp	Gln	Ser	Gln	Cys	Asn	Glu	Met	Tyr	Ile	Asn	
65				70						75					80	
Ser	Ser	Gln	Arg	Val	Glu	Ser	Thr	Val	Ile	Pro	Glu	Ser	Thr	Ile	Met	
				85				90						95		
Arg	Thr	Leu	His	Ser	Gly	Glu	Ile	Thr	Ser	His	Glu	Gln	Gly	Phe	Ser	
		100						105					110			
Val	Glu	Leu	Glu	Ser	Glu	Ile	Ser	Thr	Thr	Ala	Asp	Asp	Cys	Ser	Ser	
		115					120					125				
Glu	Val	Asn	Gly	Cys	Ser	Phe	Val	Met	Arg	Thr	Gly	Lys	Pro	Thr	Asn	
	130					135					140					
Leu	Leu	Arg	Glu	Glu	Glu	Phe	Gly	Val	Asp	Asp	Ser	Tyr	Ser	Glu	Gln	
145					150					155					160	
Gly	Ala	Gln	Asp	Ser	Pro	Thr	His	Leu	Glu	Met	Met	Glu	Ser	Glu	Leu	
				165				170						175		
Ala	Gly	Lys	Gln	His	Glu	Ile	Glu	Glu	Leu	Asn	Arg	Glu	Leu	Glu	Glu	
		180						185					190			
Met	Arg	Val	Thr	Tyr	Gly	Thr	Glu	Gly	Leu	Gln	Gln	Leu	Gln	Glu	Phe	
		195					200					205				
Glu	Ala	Ala	Ile	Lys	Gln	Arg	Asp	Gly	Ile	Ile	Thr	Gln	Leu	Thr	Ala	
	210					215					220					
Asn	Leu	Gln	Gln	Ala	Arg	Arg	Glu	Lys	Asp	Glu	Thr	Met	Arg	Glu	Phe	
225					230					235					240	
Leu	Glu	Leu	Thr	Glu	Gln	Ser	Gln	Lys	Leu	Gln	Ile	Gln	Phe	Gln	Gln	
				245					250					255		
Leu	Gln	Ala	Ser	Glu	Thr	Leu	Arg	Asn	Ser	Thr	His	Ser	Ser	Thr	Ala	
		260						265					270			
Ala	Asp	Leu	Leu	Gln	Ala	Lys	Gln	Gln	Ile	Leu	Thr	His	Gln	Gln	Gln	
		275					280					285				

Leu	Glu	Glu	Gln	Asp	His	Leu	Leu	Glu	Asp	Tyr	Gln	Lys	Lys	Lys	Glu
290						295					300				
Asp	Phe	Thr	Met	Gln	Ile	Ser	Phe	Leu	Gln	Glu	Lys	Ile	Lys	Val	Tyr
305					310					315					320
Glu	Met	Glu	Gln	Asp	Lys	Lys	Val	Glu	Asn	Ser	Asn	Lys	Glu	Glu	Ile
				325					330					335	
Gln	Glu	Lys	Glu	Thr	Ile	Ile	Glu	Glu	Leu	Asn	Thr	Lys	Ile	Ile	Glu
			340					345					350		
Glu	Glu	Lys	Lys	Thr	Leu	Glu	Leu	Lys	Asp	Lys	Leu	Thr	Thr	Ala	Asp
		355					360					365			
Lys	Leu	Leu	Gly	Glu	Leu	Gln	Glu	Gln	Ile	Val	Gln	Lys	Asn	Gln	Glu
	370					375					380				
Ile	Lys	Asn	Met	Lys	Leu	Glu	Leu	Thr	Asn	Ser	Lys	Gln	Lys	Glu	Arg
385					390					395					400
Gln	Ser	Ser	Glu	Glu	Ile	Lys	Gln	Leu	Met	Gly	Thr	Val	Glu	Glu	Leu
				405					410					415	
Gln	Lys	Arg	Asn	His	Lys	Asp	Ser	Gln	Phe	Glu	Thr	Asp	Ile	Val	Gln
			420					425					430		
Arg	Met	Glu	Gln	Glu	Thr	Gln	Arg	Lys	Leu	Glu	Gln	Leu	Arg	Ala	Glu
	435						440					445			
Leu	Asp	Glu	Met	Tyr	Gly	Gln	Gln	Ile	Val	Gln	Met	Lys	Gln	Glu	Leu
	450					455					460				
Ile	Arg	Gln	His	Met	Ala	Gln	Met	Glu	Glu	Met	Lys	Thr	Arg	His	Lys
465					470					475					480
Gly	Glu	Met	Glu	Asn	Ala	Leu	Arg	Ser	Tyr	Ser	Asn	Ile	Thr	Val	Asn
				485					490					495	
Glu	Asp	Gln	Ile	Lys	Leu	Met	Asn	Val	Ala	Ile	Asn	Glu	Leu	Asn	Ile
			500					505					510		
Lys	Leu	Gln	Asp	Thr	Asn	Ser	Gln	Lys	Glu	Lys	Leu	Lys	Glu	Glu	Leu
	515						520					525			
Gly	Leu	Ile	Leu	Glu	Glu	Lys	Cys	Ala	Leu	Gln	Arg	Gln	Leu	Glu	Asp
	530					535					540				
Leu	Val	Glu	Glu	Leu	Ser	Phe	Ser	Arg	Glu	Gln	Ile	Gln	Arg	Ala	Arg
545					550					555					560
Gln	Thr	Ile	Ala	Glu	Gln	Glu	Ser	Lys	Leu	Asn	Glu	Ala	His	Lys	Ser
				565					570					575	
Leu	Ser	Thr	Val	Glu	Asp	Leu	Lys	Ala	Glu	Ile	Val	Ser	Ala	Ser	Glu
			580					585					590		
Ser	Arg	Lys	Glu	Leu	Glu	Leu	Lys	His	Glu	Ala	Glu	Val	Thr	Asn	Tyr
	595						600					605			
Lys	Ile	Lys	Leu	Glu	Met	Leu	Glu	Lys	Glu	Lys	Asn	Ala	Val	Leu	Asp
	610					615					620				
Arg	Met	Ala	Glu	Ser	Gln	Glu	Ala	Glu	Leu	Glu	Arg	Leu	Arg	Thr	Gln
625					630					635					640
Leu	Leu	Phe	Ser	His	Glu	Glu	Glu	Leu	Ser	Lys	Leu	Lys	Glu	Asp	Leu
				645					650					655	
Glu	Ile	Glu	His	Arg	Ile	Asn	Ile	Glu	Lys	Leu	Lys	Asp	Asn	Leu	Gly
			660					665					670		
Ile	His	Tyr	Lys	Gln	Gln	Ile	Asp	Gly	Leu	Gln	Asn	Glu	Met	Ser	Gln
	675						680					685			
Lys	Ile	Glu	Thr	Met	Gln	Phe	Glu	Lys	Asp	Asn	Leu	Ile	Thr	Lys	Gln
	690					695					700				
Asn	Gln	Leu	Ile	Leu	Glu	Ile	Ser	Lys	Leu	Lys	Asp	Leu	Gln	Gln	Ser
705					710					715					720
Leu	Val	Asn	Ser	Lys	Ser	Glu	Glu	Met	Thr	Leu	Gln	Ile	Asn	Glu	Leu
				725					730					735	
Gln	Lys	Glu	Ile	Glu	Ile	Leu	Arg	Gln	Glu	Glu	Lys	Glu	Lys	Gly	Thr
			740					745					750		
Leu	Glu	Gln	Glu	Val	Gln	Glu	Leu	Gln	Leu	Lys	Thr	Glu	Leu	Leu	Glu
	755						760					765			
Lys	Gln	Met	Lys	Glu	Lys	Glu	Asn	Asp	Leu	Gln	Glu	Lys	Phe	Ala	Gln
	770					775					780				
Leu	Glu	Ala	Glu	Asn	Ser	Ile	Leu	Lys	Asp	Glu	Lys	Lys	Thr	Leu	Glu

785					790					795				800
Asp	Met	Leu	Lys	Ile	His	Thr	Pro	Val	Ser	Gln	Glu	Glu	Arg	Leu
				805					810					815
Phe	Leu	Asp	Ser	Ile	Lys	Ser	Lys	Ser	Lys	Asp	Ser	Val	Trp	Glu
			820					825					830	Lys
Glu	Ile	Glu	Ile	Leu	Ile	Glu	Glu	Asn	Glu	Asp	Leu	Lys	Gln	Gln
		835					840					845		Cys
Ile	Gln	Leu	Asn	Glu	Glu	Ile	Glu	Lys	Gln	Arg	Asn	Thr	Phe	Ser
	850					855					860			Phe
Ala	Glu	Lys	Asn	Phe	Glu	Val	Asn	Tyr	Gln	Glu	Leu	Gln	Glu	Glu
865					870					875				Tyr
Ala	Cys	Leu	Leu	Lys	Val	Lys	Asp	Asp	Leu	Glu	Asp	Ser	Lys	Asn
			885					890						Lys
Gln	Glu	Leu	Glu	Tyr	Lys	Ser	Lys	Leu	Lys	Ala	Leu	Asn	Glu	Glu
		900						905					910	Leu
His	Leu	Gln	Arg	Ile	Asn	Pro	Thr	Thr	Val	Lys	Met	Lys	Ser	Ser
	915						920					925		Val
Phe	Asp	Glu	Asp	Lys	Thr	Phe	Val	Ala	Glu	Thr	Leu	Glu	Met	Gly
	930					935					940			Glu
Val	Val	Glu	Lys	Asp	Thr	Thr	Glu	Leu	Met	Glu	Lys	Leu	Glu	Val
945					950					955				Thr
Lys	Arg	Glu	Lys	Leu	Glu	Leu	Ser	Gln	Arg	Leu	Ser	Asp	Leu	Ser
			965					970						Glu
Gln	Leu	Lys	Gln	Lys	His	Gly	Glu	Ile	Ser	Phe	Leu	Asn	Glu	Glu
		980					985					990		Val
Lys	Ser	Leu	Lys	Gln	Glu	Lys	Glu	Gln	Val	Ser	Leu	Arg	Cys	Arg
	995						1000					1005		Glu
Leu	Glu	Ile	Ile	Ile	Asn	His	Asn	Arg	Ala	Glu	Asn	Val	Gln	Ser
	1010					1015					1020			Cys
Asp	Thr	Gln	Val	Ser	Ser	Leu	Leu	Asp	Gly	Val	Val	Thr	Met	Thr
1025					1030					1035				Ser
Arg	Gly	Ala	Glu	Gly	Ser	Val	Ser	Lys	Val	Asn	Lys	Ser	Phe	Gly
			1045						1050					Glu
Glu	Ser	Lys	Ile	Met	Val	Glu	Asp	Lys	Val	Ser	Phe	Glu	Asn	Met
		1060						1065					1070	Thr
Val	Gly	Glu	Glu	Ser	Lys	Gln	Glu	Gln	Leu	Ile	Leu	Asp	His	Leu
	1075						1080					1085		Pro
Ser	Val	Thr	Lys	Glu	Ser	Ser	Leu	Arg	Ala	Thr	Gln	Pro	Ser	Glu
	1090					1095					1100			Asn
Asp	Lys	Leu	Gln	Lys	Glu	Leu	Asn	Val	Leu	Lys	Ser	Glu	Gln	Asn
1105					1110					1115				Asp
Leu	Arg	Leu	Gln	Met	Glu	Ala	Gln	Arg	Ile	Cys	Leu	Ser	Leu	Val
			1125						1130					Tyr
Ser	Thr	His	Val	Asp	Gln	Val	Arg	Glu	Tyr	Met	Glu	Asn	Glu	Lys
		1140						1145					1150	Asp
Lys	Ala	Leu	Cys	Ser	Leu	Lys	Glu	Glu	Leu	Ile	Phe	Ala	Gln	Glu
	1155						1160					1165		Glu
Lys	Ile	Lys	Glu	Leu	Gln	Lys	Ile	His	Gln	Leu	Glu	Leu	Gln	Thr
	1170					1175					1180			Met
Lys	Thr	Gln	Glu	Thr	Gly	Asp	Glu	Gly	Lys	Pro	Leu	His	Leu	Leu
1185					1190				1195					Ile
Gly	Lys	Leu	Gln	Lys	Ala	Val	Ser	Glu	Glu	Cys	Ser	Tyr	Phe	Leu
			1205						1210					Gln
Thr	Leu	Cys	Ser	Val	Leu	Gly	Glu	Tyr	Tyr	Thr	Pro	Ala	Leu	Lys
		1220						1225					1230	Cys
Glu	Val	Asn	Ala	Glu	Asp	Lys	Glu	Asn	Ser	Gly	Asp	Tyr	Ile	Ser
	1235						1240					1245		Glu
Asn	Glu	Asp	Pro	Glu	Leu	Gln	Asp	Tyr	Arg	Tyr	Glu	Val	Gln	Asp
	1250					1255					1260			Phe
Gln	Glu	Asn	Met	His	Thr	Leu	Leu	Asn	Lys	Val	Thr	Glu	Glu	Tyr
1265					1270				1275					Asn
Lys	Leu	Leu	Val	Leu	Gln	Thr	Arg	Leu	Ser	Lys	Ile	Trp	Gly	Gln
			1285						1290					Gln

Thr Asp Gly Met Lys Leu Glu Phe Gly Glu Glu Asn Leu Pro Lys Glu
 1300 1305 1310
 Glu Thr Glu Phe Leu Ser Ile His Ser Gln Met Thr Asn Leu Glu Asp
 1315 1320 1325
 Ile Asp Val Asn His Lys Ser Lys Leu Ser Ser Leu Gln Asp Leu Glu
 1330 1335 1340
 Lys Thr Lys Leu Glu Glu Gln Val Gln Glu Leu Glu Ser Leu Ile Ser
 1345 1350 1355 1360
 Ser Leu Gln Gln Gln Leu Lys Glu Thr Glu Gln Asn Tyr Glu Ala Glu
 1365 1370 1375
 Ile His Cys Leu Gln Lys Arg Leu Gln Ala Val Ser Glu Ser Thr Val
 1380 1385 1390
 Pro Pro Ser Leu Pro Val Asp Ser Val Val Ile Thr Glu Ser Asp Ala
 1395 1400 1405
 Gln Arg Thr Met Tyr Pro Gly Ser Cys Val Lys Lys Asn Ile Asp Gly
 1410 1415 1420
 Thr Ile Glu Phe Ser Gly Glu Phe Gly Val Lys Glu Glu Thr Asn Ile
 1425 1430 1435 1440
 Val Lys Leu Leu Glu Lys Gln Tyr Gln Glu Gln Leu Glu Glu Glu Val
 1445 1450 1455
 Ala Lys Val Ile Val Ser Met Ser Ile Ala Phe Ala Gln Gln Thr Glu
 1460 1465 1470
 Leu Ser Arg Ile Ser Gly Gly Lys Glu Asn Thr Ala Ser Ser Lys Gln
 1475 1480 1485
 Ala His Ala Val Cys Gln Gln Glu Gln His Tyr Phe Asn Glu Met Lys
 1490 1495 1500
 Leu Ser Gln Asp Gln Ile Gly Phe Gln Thr Phe Glu Thr Val Asp Val
 1505 1510 1515 1520
 Lys Phe Lys Glu Glu Phe Lys Pro Leu Ser Lys Glu Leu Gly Glu His
 1525 1530 1535
 Gly Lys Glu Ile Leu Leu Ser Asn Ser Asp Pro His Asp Ile Pro Glu
 1540 1545 1550
 Ser Lys Asp Cys Val Leu Thr Ile Ser Glu Glu Met Phe Ser Lys Asp
 1555 1560 1565
 Lys Thr Phe Ile Val Arg Gln Ser Ile His Asp Glu Ile Ser Val Ser
 1570 1575 1580
 Ser Met Asp Ala Ser Arg Gln Leu Met Leu Asn Glu Glu Gln Leu Glu
 1585 1590 1595 1600
 Asp Met Arg Gln Glu Leu Val Arg Gln Tyr Gln Glu His Gln Gln Ala
 1605 1610 1615
 Thr Gln Arg Ser Ser Ile Asp Asn Glu Asn Leu Val Ser Glu Arg Glu
 1620 1625 1630
 Arg Val Leu Leu Glu Glu Leu Glu Ala Leu Lys Gln Leu Ser Leu Ala
 1635 1640 1645
 Gly Arg Glu Lys Leu Cys Cys Glu Leu Arg Asn Ser Ser Thr Gln Thr
 1650 1655 1660
 Gln Asn Gly Asn Glu Asn Gln Gly Glu Val Glu Glu Gln Thr Phe Lys
 1665 1670 1675 1680
 Glu Lys Glu Leu Asp Arg Lys Pro Glu Asp Val Pro Pro Glu Ile Leu
 1685 1690 1695
 Ser Asn Glu Arg Tyr Ala Leu Gln Lys Ala Asn Asn Arg Leu Leu Lys
 1700 1705 1710
 Ile Leu Leu Glu Val Val Lys Thr Thr Ala Ala Val Glu Glu Thr Ile
 1715 1720 1725
 Gly Arg His Val Leu Gly Ile Leu Asp Arg Ser Ser Lys Ser Gln Ser
 1730 1735 1740
 Ser Ala Ser Leu Ile Trp Arg Ser Glu Ala Glu Ala Ser Val Lys Ser
 1745 1750 1755 1760
 Cys Val His Glu Glu His Thr Arg Val Thr Asp Glu Ser Ile Pro Ser
 1765 1770 1775
 Tyr Ser Gly Ser Asp Met Pro Arg Asn Asp Ile Asn Met Trp Ser Lys
 1780 1785 1790
 Val Thr Glu Glu Gly Thr Glu Leu Ser Gln Arg Leu Val Arg Ser Gly

Asp Leu Glu Thr Gln Ile Glu Cys Leu Met Ser Asp Gln Glu Cys Val
 2305 2310 2315 2320
 Lys Arg Asn Arg Glu Glu Ile Glu Gln Leu Asn Glu Val Ile Glu
 2325 2330 2335
 Lys Leu Gln Gln Glu Leu Ala Asn Ile Gly Gln Lys Thr Ser Met Asn
 2340 2345 2350
 Ala His Ser Leu Ser Glu Glu Ala Asp Ser Leu Lys His Gln Leu Asp
 2355 2360 2365
 Val Val Ile Ala Glu Lys Leu Ala Leu Glu Gln Gln Val Glu Thr Ala
 2370 2375 2380
 Asn Glu Glu Met Thr Phe Met Lys Asn Val Leu Lys Glu Thr Asn Phe
 2385 2390 2395 2400
 Lys Met Asn Gln Leu Thr Gln Glu Leu Phe Ser Leu Lys Arg Glu Arg
 2405 2410 2415
 Glu Ser Val Glu Lys Ile Gln Ser Ile Pro Glu Asn Ser Val Asn Val
 2420 2425 2430
 Ala Ile Asp His Leu Ser Lys Asp Lys Pro Glu Leu Glu Val Val Leu
 2435 2440 2445
 Thr Glu Asp Ala Leu Lys Ser Leu Glu Asn Gln Thr Tyr Phe Lys Ser
 2450 2455 2460
 Phe Glu Glu Asn Gly Lys Gly Ser Ile Ile Asn Leu Glu Thr Arg Leu
 2465 2470 2475 2480
 Leu Gln Leu Glu Ser Thr Val Ser Ala Lys Asp Leu Glu Leu Thr Gln
 2485 2490 2495
 Cys Tyr Lys Gln Ile Lys Asp Met Gln Glu Gln Gly Gln Phe Glu Thr
 2500 2505 2510
 Glu Met Leu Gln Lys Lys Ile Val Asn Leu Gln Lys Ile Val Glu Glu
 2515 2520 2525
 Lys Val Ala Ala Ala Leu Val Ser Gln Ile Gln Leu Glu Ala Val Gln
 2530 2535 2540
 Glu Tyr Ala Lys Phe Cys Gln Asp Asn Gln Thr Ile Ser Ser Glu Pro
 2545 2550 2555 2560
 Glu Arg Thr Asn Ile Gln Asn Leu Asn Gln Leu Arg Glu Asp Glu Leu
 2565 2570 2575
 Gly Ser Asp Ile Ser Ala Leu Thr Leu Arg Ile Ser Glu Leu Glu Ser
 2580 2585 2590
 Gln Val Val Glu Met His Thr Ser Leu Ile Leu Glu Lys Glu Gln Val
 2595 2600 2605
 Glu Ile Ala Glu Lys Asn Val Leu Glu Lys Glu Lys Lys Leu Leu Glu
 2610 2615 2620
 Leu Gln Lys Leu Leu Glu Gly Asn Glu Lys Lys Gln Arg Glu Lys Glu
 2625 2630 2635 2640
 Lys Lys Arg Ser Pro Gln Asp Val Glu Val Leu Lys Thr Thr Thr Glu
 2645 2650 2655
 Leu Phe His Ser Asn Glu Glu Ser Gly Phe Phe Asn Glu Leu Glu Ala
 2660 2665 2670
 Leu Arg Ala Glu Ser Val Ala Thr Lys Ala Glu Leu Ala Ser Tyr Lys
 2675 2680 2685
 Glu Lys Ala Glu Lys Leu Gln Glu Glu Leu Leu Val Lys Glu Thr Asn
 2690 2695 2700
 Met Thr Ser Leu Gln Lys Asp Leu Ser Gln Val Arg Asp His Leu Ala
 2705 2710 2715 2720
 Glu Ala Lys Glu Lys Leu Ser Ile Leu Glu Lys Glu Asp Glu Thr Glu
 2725 2730 2735
 Val Gln Glu Ser Lys Lys Ala Cys Met Phe Glu Pro Leu Pro Ile Lys
 2740 2745 2750
 Leu Ser Lys Ser Ile Ala Ser Gln Thr Asp Gly Thr Leu Lys Ile Ser
 2755 2760 2765
 Ser Ser Asn Gln Thr Pro Gln Ile Leu Val Lys Asn Ala Gly Ile Gln
 2770 2775 2780
 Ile Asn Leu Gln Ser Glu Cys Ser Ser Glu Glu Val Thr Glu Ile Ile
 2785 2790 2795 2800
 Ser Gln Phe Thr Glu Lys Ile Glu Lys Met Gln Glu Leu His Ala Ala

Glu Asp Leu Leu Lys Glu Leu Gln Lys Gln Leu Glu Glu Lys His Ser
 3315 3320 3325
 Arg Ile Val Glu Leu Leu Asn Glu Thr Glu Lys Tyr Lys Leu Asp Ser
 3330 3335 3340
 Leu Gln Thr Arg Gln Gln Met Glu Lys Asp Arg Gln Val His Arg Lys
 3345 3350 3355 3360
 Thr Leu Gln Thr Glu Gln Glu Ala Asn Thr Glu Gly Gln Lys Lys Met
 3365 3370 3375
 His Glu Leu Gln Ser Lys Val Glu Asp Leu Gln Arg Gln Leu Glu Glu
 3380 3385 3390
 Lys Arg Gln Gln Val Tyr Lys Leu Asp Leu Glu Gly Gln Arg Leu Gln
 3395 3400 3405
 Gly Ile Met Gln Glu Phe Gln Lys Gln Glu Leu Glu Arg Glu Glu Lys
 3410 3415 3420
 Arg Glu Ser Arg Arg Ile Leu Tyr Gln Asn Leu Asn Glu Pro Thr Thr
 3425 3430 3435 3440
 Trp Ser Leu Thr Ser Asp Arg Thr Arg Asn Trp Val Leu Gln Gln Lys
 3445 3450 3455
 Ile Glu Gly Glu Thr Lys Glu Ser Asn Tyr Ala Lys Leu Ile Glu Met
 3460 3465 3470
 Asn Gly Gly Thr Gly Cys Asn His Glu Leu Glu Met Ile Arg Gln
 3475 3480 3485
 Lys Leu Gln Cys Val Ala Ser Lys Leu Gln Val Leu Pro Gln Lys Ala
 3490 3495 3500
 Ser Glu Arg Leu Gln Phe Glu Thr Ala Asp Asp Glu Asp Phe Ile Trp
 3505 3510 3515 3520
 Val Gln Glu Asn Ile Asp Glu Ile Ile Leu Gln Leu Gln Lys Leu Thr
 3525 3530 3535
 Gly Gln Gln Gly Glu Glu Pro Ser Leu Val Ser Pro Ser Thr Ser Cys
 3540 3545 3550
 Gly Ser Leu Thr Glu Arg Leu Leu Arg Gln Asn Ala Glu Leu Thr Gly
 3555 3560 3565
 His Ile Ser Gln Leu Thr Glu Glu Lys Asn Asp Leu Arg Asn Met Val
 3570 3575 3580
 Met Lys Leu Glu Glu Gln Ile Arg Trp Tyr Arg Gln Thr Gly Ala Gly
 3585 3590 3595 3600
 Arg Asp Asn Ser Ser Arg Phe Ser Leu Asn Gly Gly Ala Asn Ile Glu
 3605 3610 3615
 Ala Ile Ile Ala Ser Glu Lys Glu Val Trp Asn Arg Glu Lys Leu Thr
 3620 3625 3630
 Leu Gln Lys Ser Leu Lys Arg Ala Glu Ala Glu Val Tyr Lys Leu Lys
 3635 3640 3645
 Ala Glu Leu Arg Asn Asp Ser Leu Leu Gln Thr Leu Ser Pro Asp Ser
 3650 3655 3660
 Glu His Val Thr Leu Lys Arg Ile Tyr Gly Lys Tyr Leu Arg Ala Glu
 3665 3670 3675 3680
 Ser Phe Arg Lys Ala Leu Ile Tyr Gln Lys Lys Tyr Leu Leu Leu Leu
 3685 3690 3695
 Leu Gly Gly Phe Gln Glu Cys Glu Asp Ala Thr Leu Ala Leu Leu Ala
 3700 3705 3710
 Arg Met Gly Gly Gln Pro Ala Phe Thr Asp Leu Glu Val Ile Thr Asn
 3715 3720 3725
 Arg Pro Lys Gly Phe Thr Arg Phe Arg Ser Ala Val Arg Val Ser Ile
 3730 3735 3740
 Ala Ile Ser Arg Met Lys Phe Leu Val Arg Arg Trp His Arg Val Thr
 3745 3750 3755 3760
 Gly Ser Val Ser Ile Asn Ile Asn Arg Asp Gly Phe Gly Leu Asn Gln
 3765 3770 3775
 Gly Ala Glu Lys Thr Asp Ser Phe Tyr His Ser Ser Gly Gly Leu Glu
 3780 3785 3790
 Leu Tyr Gly Glu Pro Arg His Thr Thr Tyr Arg Ser Arg Ser Asp Leu
 3795 3800 3805
 Asp Tyr Ile Arg Ser Pro Leu Pro Phe Gln Asn Arg Tyr Pro Gly Thr

3810	3815	3820
Pro Ala Asp Phe Asn Pro Gly Ser Leu Ala Cys Ser Gln Leu Gln Asn		
3825	3830	3835
Tyr Asp Pro Asp Arg Ala Leu Thr Asp Tyr Ile Thr Arg Leu Glu Ala		3840
	3845	3850
Leu Gln Arg Arg Leu Gly Thr Ile Gln Ser Gly Ser Thr Thr Gln Phe		3855
	3860	3865
His Ala Gly Met Arg Arg		3870
3875		

<210> 12
 <211> 1087
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 12

Arg Glu Lys Leu Glu Val Gln Cys Gln Ala Glu Lys Val Arg Asp Asp	
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Leu Gln Lys Gln Val Lys Ala Leu Glu Ile Asp Val Glu Glu Gln Val	
	20
Cys Arg Phe Ile Glu Leu Glu Gln Glu Lys Asn Ala Glu Leu Met Asp	
	35
Leu Arg Gln Gln Asn Gln Ala Leu Glu Lys Gln Leu Glu Lys Met Arg	
	50
Lys Met Asp Leu Arg Gln Gln Asn Gln Ala Leu Glu Lys Gln Leu Glu	
65	70
Lys Met Arg Lys Phe Leu Asp Glu Gln Ala Ile Asp Arg Glu His Glu	
	85
Arg Asp Val Phe Gln Gln Glu Ile Gln Lys Leu Glu Gln Gln Leu Lys	
	100
Leu Val Pro Arg Phe Gln Pro Ile Ser Glu His Gln Thr Arg Glu Val	
	115
Glu Gln Leu Thr Asn His Leu Lys Glu Lys Thr Asp Lys Cys Ser Glu	
	130
Leu Leu Leu Ser Lys Glu Gln Leu Gln Arg Asp Val Gln Glu Arg Asn	
145	150
Glu Glu Ile Glu Lys Leu Glu Cys Arg Val Arg Glu Leu Glu Gln Ala	
	165
Leu Leu Ser Val Gln Thr Leu Ser Lys Arg Trp Arg Thr Arg Asn Ser	
	180
Phe Gly Ala Val Glu Pro Lys Ala Glu Leu Cys Leu Glu Val Gln Leu	
	195
Gln Ala Glu Arg Asp Ala Ile Asp Arg Lys Glu Lys Glu Ile Thr Asn	
	210
Leu Glu Glu Gln Leu Glu Gln Phe Arg Glu Glu Leu Glu Asn Lys Asn	
225	230
Glu Glu Val Gln Gln Leu His Met Gln Leu Glu Ile Gln Lys Lys Glu	
	245
Ser Thr Thr Arg Leu Gln Glu Leu Glu Gln Glu Asn Lys Leu Phe Lys	
	260
Asp Glu Met Glu Lys Leu Gly Phe Ala Ile Lys Glu Ser Asp Ala Val	
	275
Ser Pro Gln Asp Gln Gln Val Leu Phe Gly Lys Phe Ala Gln Ile Ile	
	290
His Glu Lys Glu Val Glu Ile Asp Arg Leu Asn Glu Gln Ile Ile Lys	
305	310
Leu Gln Gln Gln Leu Lys Ile Thr Thr Asp Asn Lys Val Ile Glu Glu	
	325
Lys Asn Glu Leu Ile Arg Asp Leu Glu Ala Gln Ile Glu Cys Leu Met	
	340
Ser Asp Gln Glu Arg Val Arg Lys Asn Arg Glu Glu Glu Ile Glu Gln	
	355
	360
	365

Leu	Asn	Glu	Val	Ile	Glu	Lys	Leu	Gln	Gln	Glu	Leu	Ala	Asn	Ile	Asp
370						375					380				
Gln	Lys	Thr	Ser	Val	Asp	Pro	Ser	Ser	Leu	Ser	Glu	Glu	Ala	Asp	Ser
385					390					395					400
Leu	Lys	His	Gln	Leu	Asp	Lys	Val	Ile	Ala	Glu	Lys	Leu	Ala	Leu	Glu
				405					410					415	
His	Gln	Val	Glu	Thr	Thr	Asn	Glu	Glu	Met	Ala	Val	Thr	Lys	Asn	Val
			420					425					430		
Leu	Lys	Glu	Thr	Asn	Phe	Lys	Met	Asn	Gln	Leu	Thr	Gln	Glu	Leu	Cys
		435				440						445			
Ser	Leu	Lys	Arg	Glu	Arg	Glu	Lys	Met	Glu	Arg	Ile	Gln	Ser	Val	Pro
	450					455					460				
Glu	Lys	Ser	Val	Asn	Met	Ser	Val	Gly	Asp	Leu	Ser	Lys	Asp	Lys	Pro
465					470					475					480
Glu	Met	Asp	Leu	Ile	Pro	Thr	Glu	Asp	Ala	Leu	Ala	Gln	Leu	Glu	Thr
				485					490					495	
Gln	Thr	Gln	Leu	Arg	Ser	Ser	Glu	Glu	Ser	Ser	Lys	Val	Ser	Leu	Ser
			500					505					510		
Ser	Leu	Glu	Thr	Lys	Leu	Leu	Gln	Leu	Glu	Ser	Thr	Val	Ser	Thr	Lys
	515						520					525			
Asp	Leu	Glu	Leu	Thr	Gln	Cys	Tyr	Lys	Gln	Ile	Gln	Asp	Met	Arg	Glu
	530					535					540				
Gln	Gly	Arg	Ser	Glu	Thr	Glu	Met	Leu	Gln	Thr	Lys	Ile	Val	Ser	Leu
545					550					555					560
Gln	Lys	Val	Leu	Glu	Glu	Lys	Val	Ala	Ala	Ala	Leu	Val	Ser	Gln	Val
				565					570					575	
Gln	Leu	Glu	Ala	Val	Gln	Glu	Tyr	Val	Lys	Leu	Cys	Ala	Asp	Lys	Pro
			580					585					590		
Ala	Val	Ser	Ser	Asp	Pro	Ala	Arg	Thr	Glu	Val	Pro	Gly	Leu	Ser	Gln
	595					600						605			
Leu	Ala	Gly	Asn	Thr	Met	Glu	Ser	Asp	Val	Ser	Ala	Leu	Thr	Trp	Arg
	610					615				620					
Ile	Ser	Glu	Leu	Glu	Ser	Gln	Leu	Val	Glu	Met	His	Ser	Ser	Leu	Ile
625					630					635					640
Ser	Glu	Lys	Glu	Gln	Val	Glu	Ile	Ala	Glu	Lys	Asn	Ala	Leu	Glu	Lys
				645					650					655	
Glu	Lys	Lys	Leu	Gln	Glu	Leu	Gln	Lys	Leu	Val	Gln	Asp	Ser	Glu	Thr
			660					665					670		
Lys	Gln	Arg	Glu	Arg	Glu	Arg	Gln	Ser	Arg	Leu	His	Gly	Asp	Leu	Gly
	675						680					685			
Val	Leu	Glu	Ser	Thr	Thr	Ser	Glu	Glu	Ser	Gly	Val	Phe	Gly	Glu	Leu
	690					695					700				
Glu	Ala	Leu	Arg	Ala	Glu	Ser	Ala	Ala	Pro	Lys	Gly	Glu	Leu	Ala	Asn
705					710					715					720
Tyr	Lys	Glu	Leu	Ala	Glu	Lys	Leu	Gln	Glu	Glu	Leu	Leu	Val	Lys	Glu
				725					730					735	
Thr	Asn	Met	Ala	Ser	Leu	Pro	Lys	Glu	Leu	Ser	His	Val	Arg	Asp	Gln
			740					745					750		
Leu	Thr	Glu	Ala	Glu	Asp	Lys	Leu	Ser	His	Phe	Ser	Glu	Lys	Glu	Asp
		755				760						765			
Lys	Thr	Glu	Val	Gln	Glu	His	Gly	Thr	Ile	Cys	Ile	Leu	Glu	Pro	Cys
	770					775					780				
Pro	Gly	Gln	Ile	Gly	Glu	Ser	Phe	Ala	Ser	Gln	Thr	Glu	Gly	Ala	Val
785					790					795					800
Gln	Val	Asn	Ser	His	Thr	Gln	Thr	Pro	Gln	Ile	Pro	Val	Arg	Ser	Val
				805					810					815	
Gly	Ile	Gln	Thr	His	Ser	Gln	Ser	Asp	Ser	Ser	Pro	Glu	Glu	Val	Ala
			820					825					830		
Glu	Ile	Ile	Ser	Arg	Phe	Thr	Glu	Lys	Ile	Glu	Gln	Met	Arg	Glu	Leu
		835					840					845			
His	Ala	Ala	Glu	Ile	Leu	Asp	Met	Glu	Ser	Arg	His	Ile	Ser	Glu	Thr
	850					855					860				
Glu	Thr	Leu	Lys	Arg	Glu	His	Cys	Ile	Ala	Val	Gln	Leu	Leu	Thr	Glu

865		870		875		880
Glu Cys Ala Ser	Leu Lys Ser Leu Ile	Gln Gly Leu Arg Met Pro	Glu			
	885	890	895			
Gly Ser Ser Val	Pro Glu Leu Thr His Ser Asn Ala Tyr Gln Thr Arg					
	900	905	910			
Glu Val Gly Ser	Ser Asp Ser Gly Ser Asp Trp Gly Gln Gly Ile Tyr					
	915	920	925			
Leu Thr Gln Ser	Gln Gly Phe Asp Thr Ala Ser Glu Ala Arg Gly Glu					
	930	935	940			
Glu Gly Glu Thr	Ser Thr Asp Ser Phe Pro Lys Lys Ile Lys Gly Leu					
	945	950	955			
Leu Arg Ala Val	His Asn Glu Gly Met Gln Val Leu Ser Leu Thr Glu					
	965	970	975			
Gly Pro Cys Gly	Asp Gly Glu Asp Tyr Pro Gly His Gln Leu Ser Glu					
	980	985	990			
Ser Trp Leu Glu	Glu Arg Arg Ala Tyr Leu Ser Thr Ile Ser Ser Leu					
	995	1000	1005			
Lys Asp Phe Ile	Thr Lys Met Gln Val Gln Arg Glu Val Glu Val Tyr					
	1010	1015	1020			
Asp Ser Ser Gln	Ser His Glu Asn Ile Ser Asp Trp Arg Gly Glu Leu					
	1025	1030	1035			
Leu Leu Ala Leu	Gln Gln Val Phe Leu Arg Glu Arg Ser Val Leu Leu					
	1045	1050	1055			
Ala Ala Phe Lys	Thr Glu Leu Thr Ala Leu Gly Thr Arg Asp Ala Ala					
	1060	1065	1070			
Gly Leu Leu Asn	Cys Leu Glu Gln Arg Ile Pro Arg Thr Glu Tyr					
	1075	1080	1085			

<210> 13
 <211> 503
 <212> PRT
 <213> *Drosophila melanogaster*
 <400> 13

Met Asp Ser Asp	Asn Asp Asn Asp Phe Cys Asp Asn Val Asp Ser Gly
1	5 10 15
Asn Val Ser Ser	Gly Asp Asp Gly Asp Asp Asp Phe Gly Met Glu Val
	20 25 30
Asp Leu Pro Ser	Ser Ala Asp Arg Gln Met Asp Gln Asp Asp Tyr Gln
	35 40 45
Tyr Lys Val Leu	Thr Thr Asp Glu Ile Val Gln His Gln Arg Glu Ile
	50 55 60
Ile Asp Glu Ala	Asn Leu Leu Leu Lys Leu Pro Thr Pro Thr Thr Arg
	65 70 75 80
Ile Leu Leu Asn	His Phe Lys Trp Asp Lys Glu Lys Leu Leu Glu Lys
	85 90 95
Tyr Phe Asp Asp	Asn Thr Asp Glu Phe Phe Lys Cys Ala His Val Ile
	100 105 110
Asn Pro Phe Asn	Ala Thr Glu Ala Ile Lys Gln Lys Thr Ser Arg Ser
	115 120 125
Gln Cys Glu Glu	Cys Glu Ile Cys Phe Ser Gln Leu Pro Pro Asp Ser
	130 135 140
Met Ala Gly Leu	Glu Cys Gly His Arg Phe Cys Met Pro Cys Trp His
	145 150 155 160
Glu Tyr Leu Ser	Thr Lys Ile Val Ala Glu Gly Leu Gly Gln Thr Ile
	165 170 175
Ser Cys Ala Ala	His Gly Cys Asp Ile Leu Val Asp Asp Val Thr Val
	180 185 190
Ala Asn Leu Val	Thr Asp Ala Arg Val Arg Val Lys Tyr Gln Gln Leu
	195 200 205
Ile Thr Asn Ser	Phe Val Glu Cys Asn Gln Leu Leu Arg Trp Cys Pro
	210 215 220
Ser Val Asp Cys	Thr Tyr Ala Val Lys Val Pro Tyr Ala Glu Pro Arg

225						230						235				240
Arg	Val	His	Cys	Lys	Cys	Gly	His	Val	Phe	Cys	Phe	Ala	Cys	Gly	Glu	
				245					250					255		
Asn	Trp	His	Asp	Pro	Val	Lys	Cys	Arg	Trp	Leu	Lys	Lys	Trp	Ile	Lys	
			260					265					270			
Lys	Cys	Asp	Asp	Asp	Ser	Glu	Thr	Ser	Asn	Trp	Ile	Ala	Ala	Asn	Thr	
		275					280					285				
Lys	Glu	Cys	Pro	Arg	Cys	Ser	Val	Thr	Ile	Glu	Lys	Asp	Gly	Gly	Cys	
	290					295				300						
Asn	His	Met	Val	Cys	Lys	Asn	Gln	Asn	Cys	Lys	Asn	Glu	Phe	Cys	Trp	
305					310				315						320	
Val	Cys	Leu	Gly	Ser	Trp	Glu	Pro	His	Gly	Ser	Ser	Trp	Tyr	Asn	Cys	
				325					330					335		
Asn	Arg	Tyr	Asp	Glu	Asp	Glu	Ala	Lys	Thr	Ala	Arg	Asp	Ala	Gln	Glu	
			340					345					350			
Lys	Leu	Arg	Ser	Ser	Leu	Ala	Arg	Tyr	Leu	His	Tyr	Tyr	Asn	Arg	Tyr	
		355					360					365				
Met	Asn	His	Met	Gln	Ser	Met	Lys	Phe	Glu	Asn	Lys	Leu	Tyr	Ala	Ser	
	370					375				380						
Val	Lys	Gln	Lys	Met	Glu	Glu	Met	Gln	Gln	His	Asn	Met	Ser	Trp	Ile	
385					390					395					400	
Glu	Val	Gln	Phe	Leu	Lys	Lys	Ala	Val	Asp	Ile	Leu	Cys	Gln	Cys	Arg	
				405					410					415		
Gln	Thr	Leu	Met	Tyr	Thr	Tyr	Val	Phe	Ala	Tyr	Tyr	Leu	Lys	Lys	Asn	
			420					425					430			
Asn	Gln	Ser	Met	Ile	Phe	Glu	Asp	Asn	Gln	Lys	Asp	Leu	Glu	Ser	Ala	
		435					440					445				
Thr	Glu	Met	Leu	Ser	Glu	Tyr	Leu	Glu	Arg	Asp	Ile	Thr	Ser	Glu	Asn	
	450				455						460					
Leu	Ala	Asp	Ile	Lys	Gln	Lys	Val	Gln	Asp	Lys	Tyr	Arg	Tyr	Cys	Glu	
465					470				475						480	
Lys	Arg	Cys	Ser	Val	Leu	Leu	Lys	His	Val	His	Glu	Gly	Tyr	Asp	Lys	
				485					490					495		
Glu	Trp	Trp	Glu	Tyr	Thr	Glu										
			500													

<210> 14
 <211> 961
 <212> PRT
 <213> Homo sapiens

<400> 14

Met	Leu	Leu	Leu	Leu	Leu	Leu	Ala	Pro	Leu	Phe	Leu	Arg	Pro	Pro	Gly
1				5					10					15	
Ala	Gly	Gly	Ala	Gln	Thr	Pro	Asn	Ala	Thr	Ser	Glu	Gly	Cys	Gln	Ile
			20					25					30		
Ile	His	Pro	Pro	Trp	Glu	Gly	Gly	Ile	Arg	Tyr	Arg	Gly	Leu	Thr	Arg
		35				40						45			
Asp	Gln	Val	Lys	Ala	Ile	Asn	Phe	Leu	Pro	Val	Asp	Tyr	Glu	Ile	Glu
	50					55				60					
Tyr	Val	Cys	Arg	Gly	Glu	Arg	Glu	Val	Val	Gly	Pro	Lys	Val	Arg	Lys
65					70				75					80	
Cys	Leu	Ala	Asn	Gly	Ser	Trp	Thr	Asp	Met	Asp	Thr	Pro	Ser	Arg	Cys
			85					90						95	
Val	Arg	Ile	Cys	Ser	Lys	Ser	Tyr	Leu	Thr	Leu	Glu	Asn	Gly	Lys	Val
			100				105						110		
Phe	Leu	Thr	Gly	Gly	Asp	Leu	Pro	Ala	Leu	Asp	Gly	Ala	Arg	Val	Asp
		115					120					125			
Phe	Arg	Cys	Asp	Pro	Asp	Phe	His	Leu	Val	Gly	Ser	Ser	Arg	Ser	Ile
	130					135					140				
Cys	Ser	Gln	Gly	Gln	Trp	Ser	Thr	Pro	Lys	Pro	His	Cys	Gln	Val	Asn
145					150					155					160

Arg	Thr	Pro	His	Ser	Glu	Arg	Arg	Ala	Val	Tyr	Ile	Gly	Ala	Leu	Phe
				165					170					175	
Pro	Met	Ser	Gly	Gly	Trp	Pro	Gly	Gly	Gln	Ala	Cys	Gln	Pro	Ala	Val
			180					185					190		
Glu	Met	Ala	Leu	Glu	Asp	Val	Asn	Ser	Arg	Arg	Asp	Ile	Leu	Pro	Asp
		195					200					205			
Tyr	Glu	Leu	Lys	Leu	Ile	His	His	Asp	Ser	Lys	Cys	Asp	Pro	Gly	Gln
	210					215					220				
Ala	Thr	Lys	Tyr	Leu	Tyr	Glu	Leu	Leu	Tyr	Asn	Asp	Pro	Ile	Lys	Ile
225					230					235					240
Ile	Leu	Met	Pro	Gly	Cys	Ser	Ser	Val	Ser	Thr	Leu	Val	Ala	Glu	Ala
				245					250					255	
Ala	Arg	Met	Trp	Asn	Leu	Ile	Val	Leu	Ser	Tyr	Gly	Ser	Ser	Ser	Pro
			260					265					270		
Ala	Leu	Ser	Asn	Arg	Gln	Arg	Phe	Pro	Thr	Phe	Phe	Arg	Thr	His	Pro
		275					280					285			
Ser	Ala	Thr	Leu	His	Asn	Pro	Thr	Arg	Val	Lys	Leu	Phe	Glu	Lys	Trp
	290					295					300				
Gly	Trp	Lys	Lys	Ile	Ala	Thr	Ile	Gln	Gln	Thr	Thr	Glu	Val	Phe	Thr
305					310					315					320
Ser	Thr	Leu	Asp	Asp	Leu	Glu	Glu	Arg	Val	Lys	Glu	Ala	Gly	Ile	Glu
				325					330					335	
Ile	Thr	Phe	Arg	Gln	Ser	Phe	Phe	Ser	Asp	Pro	Ala	Val	Pro	Val	Lys
			340					345					350		
Asn	Leu	Lys	Arg	Gln	Asp	Ala	Arg	Ile	Ile	Val	Gly	Leu	Phe	Tyr	Glu
		355					360					365			
Thr	Glu	Ala	Arg	Lys	Val	Phe	Cys	Glu	Val	Tyr	Lys	Glu	Arg	Leu	Phe
	370					375					380				
Gly	Lys	Lys	Tyr	Val	Trp	Phe	Leu	Ile	Gly	Trp	Tyr	Ala	Asp	Asn	Trp
385					390					395				400	
Phe	Lys	Ile	Tyr	Asp	Pro	Ser	Ile	Asn	Cys	Thr	Val	Asp	Glu	Met	Thr
				405					410					415	
Glu	Ala	Val	Glu	Gly	His	Ile	Thr	Thr	Glu	Ile	Val	Met	Leu	Asn	Pro
			420					425					430		
Ala	Asn	Thr	Arg	Ser	Ile	Ser	Asn	Met	Thr	Ser	Gln	Glu	Phe	Val	Glu
		435					440					445			
Lys	Leu	Thr	Lys	Arg	Leu	Lys	Arg	His	Pro	Glu	Glu	Thr	Gly	Gly	Phe
	450					455					460				
Gln	Glu	Ala	Pro	Leu	Ala	Tyr	Asp	Ala	Ile	Trp	Ala	Leu	Ala	Leu	Ala
465					470					475					480
Leu	Asn	Lys	Thr	Ser	Gly	Gly	Gly	Gly	Arg	Ser	Gly	Val	Arg	Leu	Glu
				485					490					495	
Asp	Phe	Asn	Tyr	Asn	Asn	Gln	Thr	Ile	Thr	Asp	Gln	Ile	Tyr	Arg	Ala
			500					505					510		
Met	Asn	Ser	Ser	Ser	Phe	Glu	Gly	Val	Ser	Gly	His	Val	Val	Phe	Asp
		515					520					525			
Ala	Ser	Gly	Ser	Arg	Met	Ala	Trp	Thr	Leu	Ile	Glu	Gln	Leu	Gln	Gly
		530				535					540				
Gly	Ser	Tyr	Lys	Lys	Ile	Gly	Tyr	Tyr	Asp	Ser	Thr	Lys	Asp	Asp	Leu
545					550					555					560
Ser	Trp	Ser	Lys	Thr	Asp	Lys	Trp	Ile	Gly	Gly	Ser	Pro	Pro	Ala	Asp
				565					570					575	
Gln	Thr	Leu	Val	Ile	Lys	Thr	Phe	Arg	Phe	Leu	Ser	Gln	Lys	Leu	Phe
			580					585					590		
Ile	Ser	Val	Ser	Val	Leu	Ser	Ser	Leu	Gly	Ile	Val	Leu	Ala	Val	Val
			595				600					605			
Cys	Leu	Ser	Phe	Asn	Ile	Tyr	Asn	Ser	His	Val	Arg	Tyr	Ile	Gln	Asn
	610					615					620				
Ser	Gln	Pro	Asn	Leu	Asn	Asn	Leu	Thr	Ala	Val	Gly	Cys	Ser	Leu	Ala
625					630					635					640
Leu	Ala	Ala	Val	Phe	Pro	Leu	Gly	Leu	Asp	Gly	Tyr	His	Ile	Gly	Arg
				645					650					655	
Asn	Gln	Phe	Pro	Phe	Val	Cys	Gln	Ala	Arg	Leu	Trp	Leu	Leu	Gly	Leu

			660					665					670				
Gly	Phe	Ser	Leu	Gly	Tyr	Gly	Ser	Met	Phe	Thr	Lys	Ile	Trp	Trp	Val		
		675					680					685					
His	Thr	Val	Phe	Thr	Lys	Lys	Glu	Glu	Lys	Lys	Glu	Trp	Arg	Lys	Thr		
		690				695					700						
Leu	Glu	Pro	Trp	Lys	Leu	Tyr	Ala	Thr	Val	Gly	Leu	Leu	Val	Gly	Met		
705					710					715					720		
Asp	Val	Leu	Thr	Leu	Ala	Ile	Trp	Gln	Ile	Val	Asp	Pro	Leu	His	Arg		
				725					730					735			
Thr	Ile	Glu	Thr	Phe	Ala	Lys	Glu	Glu	Pro	Lys	Glu	Asp	Ile	Asp	Val		
			740				745						750				
Ser	Ile	Leu	Pro	Gln	Leu	Glu	His	Cys	Ser	Ser	Arg	Lys	Met	Asn	Thr		
		755				760						765					
Trp	Leu	Gly	Ile	Phe	Tyr	Gly	Tyr	Lys	Gly	Leu	Leu	Leu	Leu	Gly			
		770				775				780							
Ile	Phe	Leu	Ala	Tyr	Glu	Thr	Lys	Ser	Val	Ser	Thr	Glu	Lys	Ile	Asn		
785					790				795						800		
Asp	His	Arg	Ala	Val	Gly	Met	Ala	Ile	Tyr	Asn	Val	Ala	Val	Leu	Cys		
				805					810					815			
Leu	Ile	Thr	Ala	Pro	Val	Thr	Met	Ile	Leu	Ser	Ser	Gln	Gln	Asp	Ala		
			820					825					830				
Ala	Phe	Ala	Phe	Ala	Ser	Leu	Ala	Ile	Val	Phe	Ser	Ser	Tyr	Ile	Thr		
		835					840					845					
Leu	Val	Val	Leu	Phe	Val	Pro	Lys	Met	Arg	Arg	Leu	Ile	Thr	Arg	Gly		
		850				855					860						
Glu	Trp	Gln	Ser	Glu	Ala	Gln	Asp	Thr	Met	Lys	Thr	Gly	Ser	Ser	Thr		
865					870					875					880		
Asn	Asn	Asn	Glu	Glu	Glu	Lys	Ser	Arg	Leu	Leu	Glu	Lys	Glu	Asn	Arg		
				885					890					895			
Glu	Leu	Glu	Lys	Ile	Ile	Ala	Glu	Lys	Glu	Glu	Arg	Val	Ser	Glu	Leu		
			900				905						910				
Arg	His	Gln	Leu	Gln	Ser	Arg	Gln	Gln	Leu	Arg	Ser	Arg	Arg	His	Pro		
		915				920						925					
Pro	Thr	Pro	Pro	Glu	Pro	Ser	Gly	Gly	Leu	Pro	Arg	Gly	Pro	Pro	Glu		
		930				935					940						
Pro	Pro	Asp	Arg	Leu	Ser	Cys	Asp	Gly	Ser	Arg	Val	His	Leu	Leu	Tyr		
945					950					955					960		
Lys																	

<210> 15
 <211> 281
 <212> PRT
 <213> Saccharomyces cerevisiae

Met	Ser	Glu	Tyr	Gln	Pro	Ser	Leu	Phe	Ala	Leu	Asn	Pro	Met	Gly	Phe		
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Ser	Pro	Leu	Asp	Gly	Ser	Lys	Ser	Thr	Asn	Glu	Asn	Val	Ser	Ala	Ser		
			20					25					30				
Thr	Ser	Thr	Ala	Lys	Pro	Met	Val	Gly	Gln	Leu	Ile	Phe	Asp	Lys	Phe		
		35					40					45					
Ile	Lys	Thr	Glu	Glu	Asp	Pro	Ile	Ile	Lys	Gln	Asp	Thr	Pro	Ser	Asn		
		50			55						60						
Leu	Asp	Phe	Asp	Phe	Ala	Leu	Pro	Gln	Thr	Ala	Thr	Ala	Pro	Asp	Ala		
65					70				75						80		
Lys	Thr	Val	Leu	Pro	Ile	Pro	Glu	Leu	Asp	Ala	Val	Val	Glu	Ser			
				85				90					95				
Phe	Phe	Ser	Ser	Ser	Thr	Asp	Ser	Thr	Pro	Met	Phe	Glu	Tyr	Glu	Asn		
			100				105					110					
Leu	Glu	Asp	Asn	Ser	Lys	Glu	Trp	Thr	Ser	Leu	Phe	Asp	Asn	Asp	Ile		
		115					120					125					

Pro	Val	Thr	Thr	Asp	Asp	Val	Ser	Leu	Ala	Asp	Lys	Ala	Ile	Glu	Ser
	130					135					140				
Thr	Glu	Glu	Val	Ser	Leu	Val	Pro	Ser	Asn	Leu	Glu	Val	Ser	Thr	Thr
145					150					155					160
Ser	Phe	Leu	Pro	Thr	Pro	Val	Leu	Glu	Asp	Ala	Lys	Leu	Thr	Gln	Thr
				165					170					175	
Arg	Lys	Val	Lys	Lys	Pro	Asn	Ser	Val	Val	Lys	Lys	Ser	His	His	Val
			180					185					190		
Gly	Lys	Asp	Asp	Glu	Ser	Arg	Leu	Asp	His	Leu	Gly	Val	Val	Ala	Tyr
		195					200					205			
Asn	Arg	Lys	Gln	Arg	Ser	Ile	Pro	Leu	Ser	Pro	Ile	Val	Pro	Glu	Ser
		210				215					220				
Ser	Asp	Pro	Ala	Ala	Leu	Lys	Arg	Ala	Arg	Asn	Thr	Glu	Ala	Ala	Arg
225					230					235					240
Arg	Ser	Arg	Ala	Arg	Lys	Leu	Gln	Arg	Met	Lys	Gln	Leu	Glu	Asp	Lys
				245					250					255	
Val	Glu	Glu	Leu	Leu	Ser	Lys	Asn	Tyr	His	Leu	Glu	Asn	Glu	Val	Ala
			260					265					270		
Arg	Leu	Lys	Lys	Leu	Val	Gly	Glu	Arg							
		275					280								

<210> 16

<211> 957

<212> PRT

<213> Homo sapiens

<400> 16

Met	Ala	Asp	Pro	Ala	Glu	Cys	Ser	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
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Pro	Leu	Asn	Glu	Ala	Glu	Ile	Leu	Arg	Gly	Asp	Lys	Phe	Ile	Pro	Lys
			20					25					30		
Phe	Lys	Gly	Asp	Glu	Thr	Val	Val	Ile	Gly	Gln	Gly	Lys	Pro	Tyr	Val
		35					40					45			
Phe	Asp	Arg	Val	Leu	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	Asn
	50					55				60					
Ala	Cys	Ala	Lys	Gln	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly
65				70					75					80	
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
				85				90						95	
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
			100				105						110		
Ala	His	Asp	Ile	Phe	Asp	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
		115				120					125				
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
	130					135					140				
Asp	Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ala	Val	His	Glu	Asp	Lys
145					150					155					160
Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
				165					170					175	
Pro	Glu	Glu	Val	Met	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ala	Asn	Arg	His
			180				185						190		
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
		195				200						205			
Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Val	Glu	Thr	Glu	Lys	Lys	Leu
	210					215					220				
Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser
225					230					235					240
Lys	Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn
			245						250					255	
Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly
			260				265						270		
Thr	Lys	Thr	His	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu

Lys	Gly	Leu	Glu	Glu	Thr	Val	Ser	Arg	Glu	Leu	Gln	Thr	Leu	His	Asn
785					790					795					800
Leu	Arg	Lys	Leu	Phe	Val	Gln	Asp	Leu	Thr	Thr	Arg	Val	Lys	Lys	Ser
				805					810					815	
Val	Glu	Leu	Asp	Asn	Asp	Asp	Gly	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln
			820					825					830		
Lys	Ile	Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His
		835					840					845			
Lys	Gln	Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys
	850					855					860				
Leu	Glu	Lys	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu
865					870				875						880
Ser	Ala	Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Met	Arg	Asp	Arg	Lys	Arg
				885					890					895	
Tyr	Gln	Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ala	Lys	Asn
			900					905					910		
Met	Ala	Arg	Arg	Ala	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro
		915					920					925			
Gly	His	Tyr	Pro	Ala	Ser	Ser	Pro	Thr	Ala	Val	His	Ala	Ile	Arg	Gly
	930					935					940				
Gly	Gly	Gly	Ser	Ser	Ser	Asn	Ser	Thr	His	Tyr	Gln	Lys			
945					950					955					

<210> 17
 <211> 956
 <212> PRT
 <213> Mus musculus

<400> 17

Met	Ala	Asp	Pro	Ala	Glu	Cys	Ser	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
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Pro	Leu	Asn	Glu	Ala	Glu	Ile	Leu	Arg	Gly	Asp	Lys	Phe	Ile	Pro	Lys
			20					25					30		
Phe	Lys	Gly	Glu	Glu	Thr	Val	Val	Ile	Gly	Gln	Gly	Lys	Pro	Tyr	Val
		35					40					45			
Phe	Asp	Arg	Val	Leu	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	Asn
	50					55				60					
Ala	Cys	Ala	Lys	Gln	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly
65					70					75					80
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
				85				90						95	
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
			100					105					110		
Ala	His	Asp	Ile	Phe	Asp	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
		115					120					125			
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
	130					135					140				
Asp	Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ala	Val	His	Glu	Asp	Lys
145					150					155					160
Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
				165					170					175	
Pro	Glu	Glu	Val	Met	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ala	Asn	Arg	His
			180					185					190		
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
		195					200					205			
Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Val	Glu	Thr	Glu	Lys	Lys	Leu
	210					215						220			
Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser
225					230					235					240
Lys	Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn
				245					250					255	
Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly

			260					265				270					
Thr	Lys	Thr	His	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu		
		275					280					285					
Gln	Asp	Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Ile	Val	Ile	Cys	Cys		
	290					295					300						
Ser	Pro	Ser	Val	Phe	Asn	Glu	Ala	Glu	Thr	Lys	Ser	Thr	Leu	Met	Phe		
305					310					315					320		
Gly	Gln	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Val	Ser	Val	Asn	Leu	Glu		
				325					330					335			
Leu	Thr	Ala	Glu	Glu	Trp	Lys	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys		
			340					345					350				
Asn	Lys	Ala	Leu	Lys	Ser	Val	Leu	Gln	His	Leu	Glu	Met	Glu	Leu	Asn		
		355					360					365					
Arg	Trp	Arg	Asn	Gly	Glu	Ala	Val	Pro	Glu	Asp	Glu	Gln	Ile	Ser	Ala		
	370					375						380					
Lys	Asp	His	Lys	Ser	Leu	Glu	Pro	Cys	Asp	Asn	Thr	Pro	Ile	Ile	Asp		
385					390					395					400		
Asn	Ile	Thr	Pro	Val	Val	Asp	Gly	Ile	Ser	Ala	Glu	Lys	Glu	Lys	Tyr		
				405				410						415			
Asp	Glu	Glu	Ile	Thr	Ser	Leu	Tyr	Arg	Gln	Leu	Asp	Asp	Lys	Asp	Asp		
			420					425					430				
Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Ala	Glu	Lys	Leu	Lys	Gln	Gln	Met		
		435					440					445					
Leu	Asp	Gln	Asp	Glu	Leu	Leu	Ala	Ser	Thr	Arg	Arg	Asp	Tyr	Glu	Lys		
	450					455					460						
Ile	Gln	Glu	Glu	Leu	Thr	Arg	Leu	Gln	Ile	Glu	Asn	Glu	Ala	Ala	Lys		
465					470					475					480		
Asp	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu	Leu	Ala	Val	Asn		
				485				490						495			
Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Asp	Lys	Thr	Arg	Ala	Asn	Glu		
			500					505					510				
Gln	Leu	Thr	Asp	Glu	Leu	Ala	Gln	Lys	Thr	Thr	Thr	Leu	Thr	Thr	Thr		
	515						520					525					
Gln	Arg	Glu	Leu	Ser	Gln	Leu	Gln	Glu	Leu	Ser	Asn	His	Gln	Lys	Lys		
	530					535					540						
Arg	Ala	Thr	Glu	Ile	Leu	Asn	Leu	Leu	Leu	Lys	Asp	Leu	Gly	Glu	Ile		
545					550					555					560		
Gly	Gly	Ile	Ile	Gly	Thr	Asn	Asp	Val	Lys	Thr	Leu	Ala	Asp	Val	Asn		
				565				570						575			
Gly	Val	Ile	Glu	Glu	Phe	Thr	Met	Ala	Arg	Leu	Tyr	Ile	Ser	Lys			
			580				585					590					
Met	Lys	Ser	Glu	Val	Lys	Ser	Leu	Val	Asn	Arg	Ser	Lys	Gln	Leu	Glu		
			595				600					605					
Ser	Ala	Gln	Met	Asp	Ser	Asn	Arg	Lys	Met	Asn	Ala	Ser	Glu	Arg	Glu		
	610					615					620						
Leu	Ala	Ala	Cys	Gln	Leu	Leu	Ile	Ser	Gln	His	Glu	Ala	Lys	Ile	Lys		
625					630					635					640		
Ser	Leu	Thr	Asp	Tyr	Met	Gln	Asn	Met	Glu	Gln	Lys	Arg	Arg	Gln	Leu		
				645					650					655			
Glu	Glu	Ser	Gln	Asp	Ser	Leu	Ser	Glu	Glu	Leu	Ala	Lys	Leu	Arg	Ala		
			660					665					670				
Gln	Glu	Lys	Met	His	Glu	Val	Ser	Phe	Gln	Asp	Lys	Glu	Lys	Glu	His		
			675				680					685					
Leu	Thr	Arg	Leu	Gln	Asp	Ala	Glu	Glu	Val	Lys	Lys	Ala	Leu	Glu	Gln		
	690					695					700						
Gln	Met	Glu	Ser	His	Arg	Glu	Ala	His	Gln	Lys	Gln	Leu	Ser	Arg	Leu		
705					710					715					720		
Arg	Asp	Glu	Ile	Glu	Glu	Lys	Gln	Arg	Ile	Ile	Asp	Glu	Ile	Arg	Asp		
				725					730					735			
Leu	Asn	Gln	Lys	Leu	Gln	Leu	Glu	Gln	Glu	Arg	Leu	Ser	Ser	Asp	Tyr		
			740				745						750				
Asn	Lys	Leu	Lys	Ile	Glu	Asp	Gln	Glu	Arg	Glu	Val	Lys	Leu	Glu	Lys		
		755					760					765					

Leu	Leu	Leu	Leu	Asn	Asp	Lys	Arg	Glu	Gln	Ala	Arg	Glu	Asp	Leu	Lys
	770					775					780				
Gly	Leu	Glu	Glu	Thr	Val	Ser	Ile	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu
785					790					795					800
Arg	Lys	Leu	Phe	Val	Gln	Asp	Leu	Thr	Thr	Arg	Val	Lys	Lys	Ser	Val
				805					810					815	
Glu	Leu	Asp	Ser	Asp	Asp	Gly	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln	Lys
			820					825					830		
Ile	Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys
		835					840					845			
Gln	Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu
	850					855					860				
Glu	Lys	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu	Ser
865					870					875					880
Ala	Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Met	Arg	Asp	Arg	Lys	Arg	Tyr
				885					890					895	
Gln	Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ala	Lys	Asn	Met
			900					905					910		
Ala	Arg	Arg	Ala	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro	Gly
		915					920					925			
His	Tyr	Pro	Ala	Ser	Ser	Pro	Thr	Ala	Val	His	Ala	Val	Arg	Gly	Gly
	930					935					940				
Gly	Gly	Gly	Ser	Ser	Asn	Ser	Thr	His	Tyr	Gln	Lys				
945					950					955					

<210> 18
 <211> 815
 <212> PRT
 <213> Caenorhabditis elegans

<400> 18

Met	Glu	Pro	Arg	Thr	Asp	Gly	Ala	Glu	Cys	Gly	Val	Gln	Val	Phe	Cys
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Arg	Ile	Arg	Pro	Leu	Asn	Lys	Thr	Glu	Glu	Lys	Asn	Ala	Asp	Arg	Phe
			20					25					30		
Leu	Pro	Lys	Phe	Pro	Ser	Glu	Asp	Ser	Ile	Ser	Leu	Gly	Gly	Lys	Val
		35					40					45			
Tyr	Val	Phe	Asp	Lys	Val	Phe	Lys	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val
	50					55					60				
Tyr	Lys	Gly	Ala	Ala	Tyr	His	Ile	Val	Gln	Asp	Val	Leu	Ser	Gly	Tyr
65					70					75					80
Asn	Gly	Thr	Val	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His
				85					90					95	
Thr	Met	Glu	Gly	Val	Ile	Gly	Asp	Asn	Gly	Leu	Ser	Gly	Ile	Ile	Pro
			100					105					110		
Arg	Ile	Val	Ala	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn
		115					120					125			
Leu	Gln	Phe	His	Ile	Lys	Val	Ser	Tyr	Tyr	Glu	Ile	Tyr	Asn	Glu	Lys
	130					135						140			
Ile	Arg	Asp	Leu	Leu	Asp	Pro	Glu	Lys	Val	Asn	Leu	Ser	Ile	His	Glu
145					150					155					160
Asp	Lys	Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Ala	Thr	Glu	Arg	Phe	Val
				165					170					175	
Gly	Gly	Pro	Asp	Glu	Val	Leu	Gln	Ala	Ile	Glu	Asp	Gly	Lys	Ser	Asn
			180					185					190		
Arg	Met	Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His
		195					200					205			
Ser	Val	Phe	Leu	Ile	Thr	Val	Lys	Gln	Glu	His	Gln	Thr	Thr	Lys	Lys
	210					215					220				
Gln	Leu	Thr	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys
225					230					235					240
Val	Ser	Lys	Thr	Gly	Ala	Gln	Gly	Thr	Val	Leu	Glu	Glu	Ala	Lys	Asn

Ile	Asn	Lys	Ser	245	Leu	Thr	Ala	Leu	Gly	250	Ile	Val	Ile	Ser	Ala	Leu	Ala
			260						265						270		
Glu	Gly	Thr	Lys	Ser	His	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Leu	Thr	Arg		
		275					280					285					
Ile	Leu	Gln	Glu	Ser	Leu	Gly	Gly	Asn	Ser	Arg	Thr	Thr	Val	Ile	Ile		
	290					295					300						
Cys	Ala	Ser	Pro	Ser	His	Phe	Asn	Glu	Ala	Glu	Thr	Lys	Ser	Thr	Leu		
305					310					315						320	
Leu	Phe	Gly	Ala	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Val	Val	Gln	Ile	Asn		
				325					330						335		
Glu	Glu	Leu	Thr	Ala	Glu	Glu	Trp	Lys	Arg	Arg	Tyr	Glu	Lys	Glu	Lys		
			340					345					350				
Glu	Lys	Asn	Thr	Arg	Leu	Ala	Ala	Leu	Leu	Gln	Ala	Ala	Ala	Leu	Glu		
		355					360					365					
Leu	Ser	Arg	Trp	Arg	Ala	Gly	Glu	Ser	Val	Ser	Glu	Val	Glu	Trp	Val		
	370					375					380						
Asn	Leu	Ser	Asp	Ser	Ala	Gln	Met	Ala	Val	Ser	Glu	Val	Ser	Gly	Gly		
385					390					395					400		
Ser	Thr	Pro	Leu	Met	Glu	Arg	Ser	Ile	Ala	Pro	Ala	Pro	Pro	Met	Leu		
				405					410					415			
Thr	Ser	Thr	Thr	Gly	Pro	Ile	Thr	Asp	Glu	Glu	Lys	Lys	Lys	Tyr	Glu		
			420					425					430				
Glu	Glu	Arg	Val	Lys	Leu	Tyr	Gln	Gln	Leu	Asp	Glu	Lys	Asp	Asp	Glu		
		435					440					445					
Ile	Gln	Lys	Val	Ser	Gln	Glu	Leu	Glu	Lys	Leu	Arg	Gln	Gln	Val	Leu		
	450					455					460						
Leu	Gln	Glu	Glu	Ala	Leu	Gly	Thr	Met	Arg	Glu	Asn	Glu	Glu	Leu	Ile		
465					470				475						480		
Arg	Glu	Glu	Asn	Asn	Arg	Phe	Gln	Lys	Glu	Ala	Glu	Asp	Lys	Gln	Gln		
			485					490						495			
Glu	Gly	Lys	Glu	Met	Met	Thr	Ala	Leu	Glu	Glu	Ile	Ala	Val	Asn	Leu		
			500				505					510					
Asp	Val	Arg	Gln	Ala	Glu	Cys	Glu	Lys	Leu	Lys	Arg	Glu	Leu	Glu	Val		
		515					520					525					
Val	Gln	Glu	Asp	Asn	Gln	Ser	Leu	Glu	Asp	Arg	Met	Asn	Gln	Ala	Thr		
	530					535					540						
Ser	Leu	Leu	Asn	Ala	His	Leu	Asp	Glu	Cys	Gly	Pro	Lys	Ile	Arg	His		
545					550				555						560		
Phe	Lys	Glu	Gly	Ile	Tyr	Asn	Val	Ile	Arg	Glu	Phe	Asn	Ile	Ala	Asp		
			565					570						575			
Ile	Ala	Ser	Gln	Asn	Asp	Gln	Leu	Pro	Asp	His	Asp	Leu	Leu	Asn	His		
			580					585						590			
Val	Arg	Ile	Gly	Val	Ser	Lys	Leu	Phe	Ser	Glu	Tyr	Ser	Ala	Ala	Lys		
		595					600					605					
Glu	Ser	Thr	Ala	Ala	Glu	His	Asp	Ala	Glu	Ala	Lys	Leu	Ala	Ala			
	610				615						620						
Asp	Val	Ala	Arg	Val	Glu	Ser	Gly	Gln	Asp	Ala	Gly	Arg	Met	Lys	Gln		
625					630				635					640			
Leu	Leu	Val	Lys	Asp	Gln	Ala	Ala	Lys	Glu	Ile	Lys	Pro	Leu	Thr	Asp		
			645					650						655			
Arg	Val	Asn	Met	Glu	Leu	Thr	Thr	Leu	Lys	Asn	Leu	Lys	Lys	Glu	Phe		
			660					665					670				
Met	Arg	Val	Leu	Val	Ala	Arg	Cys	Gln	Ala	Asn	Gln	Asp	Thr	Glu	Gly		
		675					680					685					
Glu	Asp	Ser	Leu	Ser	Gly	Pro	Ala	Gln	Lys	Gln	Arg	Ile	Gln	Phe	Leu		
	690				695						700						
Glu	Asn	Asn	Leu	Asp	Lys	Leu	Thr	Lys	Val	His	Lys	Gln	Leu	Val	Arg		
705					710					715					720		
Asp	Asn	Ala	Asp	Leu	Arg	Val	Glu	Leu	Pro	Lys	Met	Glu	Ala	Arg	Leu		
			725					730						735			
Arg	Gly	Arg	Glu	Asp	Arg	Ile	Lys	Ile	Leu	Glu	Thr	Ala	Leu	Arg	Asp		
			740					745					750				

Ser	Lys	Gln	Arg	Ser	Gln	Ala	Glu	Arg	Lys	Lys	Tyr	Gln	Gln	Glu	Val
		755					760					765			
Glu	Arg	Ile	Lys	Glu	Ala	Val	Arg	Gln	Arg	Asn	Met	Arg	Arg	Met	Asn
	770					775					780				
Ala	Pro	Gln	Ile	Val	Lys	Pro	Ile	Arg	Pro	Gly	Gln	Val	Tyr	Thr	Ser
785					790					795					800
Pro	Ser	Ala	Gly	Met	Ser	Gln	Gly	Ala	Pro	Asn	Gly	Ser	Asn	Ala	
				805					810					815	

<210> 19
 <211> 975
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 19

Met	Ser	Ala	Glu	Arg	Glu	Ile	Pro	Ala	Glu	Asp	Ser	Ile	Lys	Val	Val
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Cys	Arg	Phe	Arg	Pro	Leu	Asn	Asp	Ser	Glu	Glu	Lys	Ala	Gly	Ser	Lys
		20					25						30		
Phe	Val	Val	Lys	Phe	Pro	Asn	Asn	Val	Glu	Glu	Asn	Cys	Ile	Ser	Ile
	35					40						45			
Ala	Gly	Lys	Val	Tyr	Leu	Phe	Asp	Lys	Val	Phe	Lys	Pro	Asn	Ala	Ser
	50					55					60				
Gln	Glu	Lys	Val	Tyr	Asn	Glu	Ala	Ala	Lys	Ser	Ile	Val	Thr	Asp	Val
65					70					75					80
Leu	Ala	Gly	Tyr	Asn	Gly	Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser
				85					90					95	
Gly	Lys	Thr	His	Thr	Met	Glu	Gly	Val	Ile	Gly	Asp	Ser	Val	Lys	Gln
			100					105					110		
Gly	Ile	Ile	Pro	Arg	Ile	Val	Asn	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ala
	115						120					125			
Met	Glu	Val	Asn	Leu	Glu	Phe	His	Ile	Lys	Val	Ser	Tyr	Tyr	Glu	Ile
	130					135					140				
Tyr	Met	Asp	Lys	Ile	Arg	Asp	Leu	Leu	Asp	Val	Ser	Lys	Val	Asn	Leu
145					150					155					160
Ser	Val	His	Glu	Asp	Lys	Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Ala	Thr
				165					170					175	
Glu	Arg	Phe	Val	Ser	Ser	Pro	Glu	Asp	Val	Phe	Glu	Val	Ile	Glu	Glu
			180					185					190		
Gly	Lys	Ser	Asn	Arg	His	Ile	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser
		195					200					205			
Ser	Arg	Ser	His	Ser	Val	Phe	Leu	Ile	Asn	Val	Lys	Gln	Glu	Asn	Leu
	210					215					220				
Glu	Asn	Gln	Lys	Lys	Leu	Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala
225					230					235					240
Gly	Ser	Glu	Lys	Val	Ser	Lys	Thr	Gly	Ala	Glu	Gly	Thr	Val	Leu	Asp
				245					250					255	
Glu	Ala	Lys	Asn	Ile	Asn	Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile
			260					265					270		
Ser	Ala	Leu	Ala	Asp	Gly	Asn	Lys	Thr	His	Ile	Pro	Tyr	Arg	Asp	Ser
	275						280					285			
Lys	Leu	Thr	Arg	Ile	Leu	Gln	Glu	Ser	Leu	Gly	Gly	Asn	Ala	Arg	Thr
	290					295					300				
Thr	Ile	Val	Ile	Cys	Cys	Ser	Pro	Ala	Ser	Phe	Asn	Glu	Ser	Glu	Thr
305					310					315					320
Lys	Ser	Thr	Leu	Asp	Phe	Gly	Arg	Arg	Ala	Lys	Thr	Val	Lys	Asn	Val
				325					330					335	
Val	Cys	Val	Asn	Glu	Glu	Leu	Thr	Ala	Glu	Glu	Trp	Lys	Arg	Arg	Tyr
			340					345					350		
Glu	Lys	Glu	Lys	Glu	Lys	Asn	Ala	Arg	Leu	Lys	Gly	Lys	Val	Glu	Lys
		355				360						365			
Leu	Glu	Ile	Glu	Leu	Ala	Arg	Trp	Arg	Ala	Gly	Glu	Thr	Val	Lys	Ala

370		375		380
Glu Glu Gln Ile Asn Met	Glu Asp Leu Met	Glu Ala Ser Thr Pro Asn		
385	390	395		400
Leu Glu Val Glu Ala Ala	Gln Thr Ala Ala	Glu Ala Ala Leu Ala		
	405	410		415
Ala Gln Arg Thr Ala Leu	Ala Asn Met Ser	Ala Ser Val Ala Val Asn		
	420	425		430
Glu Gln Ala Arg Leu Ala	Thr Glu Cys Glu Arg	Leu Tyr Gln Gln Leu		
	435	440		445
Asp Asp Lys Asp Glu Glu	Ile Asn Gln Gln Ser	Gln Tyr Ala Glu Gln		
	450	455		460
Leu Lys Glu Gln Val Met	Glu Gln Glu Glu Leu	Ile Ala Asn Ala Arg		
	465	470		480
Arg Glu Tyr Glu Thr Leu	Gln Ser Glu Met	Ala Arg Ile Gln Gln Glu		
	485	490		495
Asn Glu Ser Ala Lys Glu	Glu Val Lys Glu Val	Leu Gln Ala Leu Glu		
	500	505		510
Glu Leu Ala Val Asn Tyr	Asp Gln Lys Ser Gln	Glu Ile Asp Asn Lys		
	515	520		525
Asn Lys Asp Ile Asp Ala	Leu Asn Glu Glu Leu	Gln Gln Lys Gln Ser		
	530	535		540
Val Phe Asn Ala Ala Ser	Thr Glu Leu Gln Gln	Leu Lys Asp Met Ser		
	545	550		560
Ser His Gln Lys Lys Arg	Ile Thr Glu Met	Leu Thr Asn Leu Leu Arg		
	565	570		575
Asp Leu Gly Glu Val Gly	Gln Ala Ile Ala Pro	Gly Glu Ser Ser Ile		
	580	585		590
Asp Leu Lys Met Ser Ala	Leu Ala Gly Thr Asp	Ala Ser Lys Val Glu		
	595	600		605
Glu Asp Phe Thr Met Ala	Arg Leu Phe Ile Ser	Lys Met Lys Thr Glu		
	610	615		620
Ala Lys Asn Ile Ala Gln	Arg Cys Ser Asn Met	Glu Thr Gln Gln Ala		
	625	630		640
Asp Ser Asn Lys Lys Ile	Ser Glu Tyr Glu Lys	Asp Leu Gly Glu Tyr		
	645	650		655
Arg Leu Leu Ile Ser Gln	His Glu Ala Arg Met	Lys Ser Leu Gln Glu		
	660	665		670
Ser Met Arg Glu Ala Glu	Asn Lys Lys Arg Thr	Leu Glu Glu Gln Ile		
	675	680		685
Asp Ser Leu Arg Glu Glu	Cys Ala Lys Leu Lys	Ala Ala Glu His Val		
	690	695		700
Ser Ala Val Asn Ala Glu	Glu Glu Lys Gln Arg	Ala Glu Glu Leu Arg		
	705	710		720
Met Phe Asp Ser Gln Met	Asp Glu Leu Arg Glu	Ala His Thr Arg Gln		
	725	730		735
Val Ser Glu Leu Arg Asp	Glu Ile Ala Lys Gln	His Glu Met Asp		
	740	745		750
Glu Met Lys Asp Val His	Gln Lys Leu Leu Leu	Ala His Gln Gln Met		
	755	760		765
Thr Ala Asp Tyr Glu Lys	Val Arg Gln Glu Asp	Ala Glu Lys Ser Ser		
	770	775		780
Glu Leu Gln Asn Ile Ile	Leu Thr Asn Glu Arg	Glu Gln Ala Arg		
	785	790		800
Lys Asp Leu Lys Gly Leu	Glu Asp Thr Val Ala	Lys Glu Leu Gln Thr		
	805	810		815
Leu His Asn Leu Arg Lys	Leu Phe Val Gln Asp	Leu Gln Gln Arg Ile		
	820	825		830
Arg Lys Asn Val Val Asn	Glu Glu Ser Glu Glu	Asp Gly Gly Ser Leu		
	835	840		845
Ala Gln Lys Gln Lys Ile	Ser Phe Leu Glu Asn	Asn Leu Asp Gln Leu		
	850	855		860
Thr Lys Val His Lys Gln	Leu Val Arg Asp Asn	Ala Asp Leu Arg Cys		
	865	870		880
		875		

Glu	Leu	Pro	Lys	Leu	Glu	Lys	Arg	Leu	Arg	Cys	Thr	Met	Glu	Arg	Val
				885					890					895	
Lys	Ala	Leu	Glu	Thr	Ala	Leu	Lys	Glu	Ala	Lys	Glu	Gly	Ala	Met	Arg
			900					905					910		
Asp	Arg	Lys	Arg	Tyr	Gln	Tyr	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val
		915					920					925			
Arg	Gln	Lys	His	Leu	Gly	Arg	Arg	Gly	Pro	Gln	Ala	Gln	Ile	Ala	Lys
	930					935					940				
Pro	Ile	Arg	Ser	Gly	Gln	Gly	Ala	Ile	Ala	Ile	Arg	Gly	Gly	Gly	Ala
945					950					955					960
Val	Gly	Gly	Pro	Ser	Pro	Leu	Ala	Gln	Val	Asn	Pro	Val	Asn	Ser	
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 <212> PRT
 <213> Homo sapiens

<400> 20

Met	Ala	Asp	Leu	Ala	Glu	Cys	Asn	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
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Pro	Leu	Asn	Glu	Ser	Glu	Val	Asn	Arg	Gly	Asp	Lys	Tyr	Ile	Ala	Lys
		20					25						30		
Phe	Gln	Gly	Glu	Asp	Thr	Val	Val	Ile	Ala	Ser	Lys	Pro	Tyr	Ala	Phe
	35					40						45			
Asp	Arg	Val	Phe	Gln	Ser	Ser	Thr	Ser	Gln	Glu	Gln	Val	Tyr	Asn	Asp
	50					55					60				
Cys	Ala	Lys	Lys	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly	Thr
65				70					75						80
Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu
			85						90					95	
Gly	Lys	Leu	His	Asp	Pro	Glu	Gly	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val
		100						105					110		
Gln	Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu	Phe
	115					120						125			
His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp
	130					135					140				
Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn
145					150					155					160
Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Cys	Ser	Pro
			165						170					175	
Asp	Glu	Val	Met	Asp	Thr	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His	Val
		180						185					190		
Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile	Phe
	195						200					205			
Leu	Ile	Asn	Val	Lys	Gln	Glu	Asn	Thr	Gln	Thr	Glu	Gln	Lys	Leu	Ser
	210					215					220				
Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys
225					230					235					240
Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys
			245						250					255	
Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly	Ser
		260						265					270		
Thr	Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu	Gln	Asp
	275						280					285			
Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Ile	Val	Ile	Cys	Cys	Ser	Pro
	290					295					300				
Ser	Ser	Tyr	Asn	Glu	Ser	Glu	Thr	Lys	Ser	Thr	Leu	Leu	Phe	Gly	Gln
305					310					315					320
Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Val	Cys	Val	Asn	Val	Glu	Leu	Thr
			325						330					335	
Ala	Glu	Gln	Trp	Lys	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys	Asn	Lys

			340					345				350				
Ile	Leu	Arg	Asn	Thr	Ile	Gln	Trp	Leu	Glu	Asn	Glu	Leu	Asn	Arg	Trp	
		355					360					365				
Arg	Asn	Gly	Glu	Thr	Val	Pro	Ile	Asp	Glu	Gln	Phe	Asp	Lys	Glu	Lys	
	370					375					380					
Ala	Asn	Leu	Glu	Ala	Phe	Thr	Val	Asp	Lys	Asp	Ile	Thr	Leu	Thr	Asn	
385					390					395					400	
Asp	Lys	Pro	Ala	Thr	Ala	Ile	Gly	Val	Ile	Gly	Asn	Phe	Thr	Asp	Ala	
				405					410						415	
Glu	Arg	Arg	Lys	Cys	Glu	Glu	Glu	Ile	Ala	Lys	Leu	Tyr	Lys	Gln	Leu	
			420				425						430			
Asp	Asp	Lys	Asp	Glu	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Val	Glu	Lys	
	435						440					445				
Leu	Lys	Thr	Gln	Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Ala	Ser	Thr	Arg	
	450					455					460					
Arg	Asp	Gln	Asp	Asn	Met	Gln	Ala	Glu	Leu	Asn	Arg	Leu	Gln	Ala	Glu	
465					470					475					480	
Asn	Asp	Ala	Ser	Lys	Glu	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	
				485					490						495	
Glu	Leu	Ala	Val	Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Asp	Lys	
			500				505						510			
Thr	Lys	Glu	Tyr	Glu	Leu	Leu	Ser	Asp	Glu	Leu	Asn	Gln	Lys	Ser	Ala	
		515					520					525				
Thr	Leu	Ala	Ser	Ile	Asp	Ala	Glu	Leu	Gln	Lys	Leu	Lys	Glu	Met	Thr	
	530					535					540					
Asn	His	Gln	Lys	Lys	Arg	Ala	Ala	Glu	Met	Met	Ala	Ser	Leu	Leu	Lys	
545					550					555					560	
Asp	Leu	Ala	Glu	Ile	Gly	Ile	Ala	Val	Gly	Asn	Asn	Asp	Val	Lys	Gln	
				565					570					575		
Pro	Glu	Gly	Thr	Gly	Met	Ile	Asp	Glu	Glu	Phe	Thr	Val	Ala	Arg	Leu	
			580					585					590			
Tyr	Ile	Ser	Lys	Met	Lys	Ser	Glu	Val	Lys	Thr	Met	Val	Lys	Arg	Cys	
		595					600					605				
Lys	Gln	Leu	Glu	Ser	Thr	Gln	Thr	Glu	Ser	Asn	Lys	Lys	Met	Glu	Glu	
	610					615					620					
Asn	Glu	Lys	Glu	Leu	Ala	Ala	Cys	Gln	Leu	Arg	Ile	Ser	Gln	His	Glu	
625					630					635					640	
Ala	Lys	Ile	Lys	Ser	Leu	Thr	Glu	Tyr	Leu	Gln	Asn	Val	Glu	Gln	Lys	
				645					650					655		
Lys	Arg	Gln	Leu	Glu	Glu	Ser	Val	Asp	Ala	Leu	Ser	Glu	Glu	Leu	Val	
			660					665					670			
Gln	Leu	Arg	Ala	Gln	Glu	Lys	Val	His	Glu	Met	Glu	Lys	Glu	His	Leu	
			675				680					685				
Asn	Lys	Val	Gln	Thr	Ala	Asn	Glu	Val	Lys	Gln	Ala	Val	Glu	Gln	Gln	
	690					695					700					
Ile	Gln	Ser	His	Arg	Glu	Thr	His	Gln	Lys	Gln	Ile	Ser	Ser	Leu	Arg	
705					710					715					720	
Asp	Glu	Val	Glu	Ala	Lys	Ala	Lys	Leu	Ile	Thr	Asp	Leu	Gln	Asp	Gln	
				725					730					735		
Asn	Gln	Lys	Met	Met	Leu	Glu	Gln	Glu	Arg	Leu	Arg	Val	Glu	His	Glu	
			740					745					750			
Lys	Leu	Lys	Ala	Thr	Asp	Gln	Glu	Lys	Ser	Arg	Lys	Leu	His	Glu	Leu	
		755					760					765				
Thr	Val	Met	Gln	Asp	Arg	Arg	Glu	Gln	Ala	Arg	Gln	Asp	Leu	Lys	Gly	
						775					780					
Leu	Glu	Glu	Thr	Val	Ala	Lys	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg	
785					790					795					800	
Lys	Leu	Phe	Val	Gln	Asp	Leu	Ala	Thr	Arg	Val	Lys	Lys	Ser	Ala	Glu	
				805					810					815		
Ile	Asp	Ser	Asp	Asp	Thr	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln	Lys	Ile	
			820					825					830			
Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys	Gln	
		835					840					845				

Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu	Glu
850						855					860				
Lys	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu	Ser	Ala
865					870					875					880
Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Ser	Arg	Asp	Arg	Lys	Arg	Tyr	Gln
				885					890					895	
Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ser	Lys	Asn	Met	Ala
			900					905					910		
Arg	Arg	Gly	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro	Gly	Gln
		915					920					925			
His	Pro	Ala	Ala	Ser	Pro	Thr	His	Pro	Ser	Ala	Ile	Arg	Gly	Gly	Gly
	930					935					940				
Ala	Phe	Val	Gln	Asn	Ser	Gln	Pro	Val	Ala	Val	Arg	Gly	Gly	Gly	Gly
945					950					955					960
Lys	Gln	Val													

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 <211> 967
 <212> PRT
 <213> Loligo pealeii

<400> 21

Met	Asp	Val	Ala	Ser	Glu	Cys	Asn	Ile	Lys	Val	Ile	Cys	Arg	Val	Arg
1				5					10					15	
Pro	Leu	Asn	Glu	Ala	Glu	Glu	Arg	Ala	Gly	Ser	Lys	Phe	Ile	Leu	Lys
			20					25					30		
Phe	Pro	Thr	Asp	Asp	Ser	Ile	Ser	Ile	Ala	Gly	Lys	Val	Phe	Val	Phe
		35					40					45			
Asp	Lys	Val	Leu	Lys	Pro	Asn	Val	Ser	Gln	Glu	Tyr	Val	Tyr	Asn	Val
	50					55					60				
Gly	Ala	Lys	Pro	Ile	Val	Ala	Asp	Val	Leu	Ser	Gly	Cys	Asn	Gly	Thr
65					70					75					80
Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu
				85					90					95	
Gly	Val	Leu	Asp	Lys	Pro	Ser	Met	His	Gly	Ile	Ile	Pro	Arg	Ile	Val
			100					105					110		
Gln	Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Gly	Met	Asp	Glu	Asn	Leu	Glu	Phe
		115					120					125			
His	Ile	Lys	Ile	Ser	Tyr	Tyr	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp
	130					135					140				
Leu	Leu	Asp	Val	Thr	Lys	Thr	Asn	Leu	Ala	Val	His	Glu	Asp	Lys	Asn
145					150					155					160
Arg	Val	Pro	Phe	Val	Lys	Gly	Ala	Thr	Glu	Arg	Phe	Val	Ser	Ser	Pro
				165					170					175	
Glu	Glu	Val	Met	Glu	Val	Ile	Asp	Glu	Gly	Lys	Asn	Asn	Arg	His	Val
			180					185					190		
Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Val	Phe
		195					200					205			
Leu	Ile	Asn	Val	Lys	Gln	Glu	Asn	Val	Glu	Thr	Gln	Lys	Lys	Leu	Ser
	210					215					220				
Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys
225					230					235					240
Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys
				245					250					255	
Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Asp	Gly	Asn
			260					265					270		
Lys	Ser	His	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Leu	Thr	Arg	Ile	Leu	Gln
		275					280					285			
Glu	Ser	Leu	Gly	Gly	Asn	Ala	Arg	Thr	Thr	Met	Val	Ile	Cys	Cys	Ser
	290					295					300				
Pro	Ala	Ser	Tyr	Asn	Glu	Ser	Glu	Thr	Lys	Ser	Thr	Leu	Leu	Phe	Gly

305					310					315				320
Gln	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Val	Val	Ser	Val	Asn	Glu	Glu
				325					330					335
Thr	Ala	Asp	Glu	Trp	Lys	Arg	Arg	Tyr	Glu	Lys	Glu	Lys	Glu	Arg
			340					345					350	
Thr	Lys	Leu	Lys	Ala	Thr	Met	Ala	Lys	Leu	Glu	Ala	Glu	Leu	Gln
		355					360					365		Arg
Trp	Arg	Thr	Gly	Gln	Ala	Val	Ser	Val	Glu	Glu	Gln	Val	Asp	Leu
	370					375					380			Lys
Glu	Asp	Val	Pro	Ala	Glu	Ser	Pro	Ala	Thr	Ser	Thr	Thr	Ser	Leu
385					390					395				400
Gly	Gly	Leu	Ile	Ala	Ser	Met	Asn	Glu	Gly	Asp	Arg	Thr	Gln	Leu
			405					410					415	Glu
Glu	Glu	Arg	Leu	Lys	Leu	Tyr	Gln	Gln	Leu	Asp	Asp	Lys	Asp	Asp
		420					425					430		
Ile	Asn	Asn	Gln	Ser	Gln	Leu	Ile	Glu	Lys	Leu	Lys	Glu	Gln	Met
	435						440					445		Met
Glu	Gln	Glu	Asp	Leu	Ile	Ala	Gln	Ser	Arg	Arg	Asp	Tyr	Glu	Asn
	450				455					460				Leu
Gln	Gln	Asp	Met	Ser	Arg	Ile	Gln	Ala	Asp	Asn	Glu	Ser	Ala	Lys
465					470					475				Asp
Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu	Leu	Ala	Met	Asn
			485					490					495	Tyr
Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Asp	Lys	Asn	Lys	Glu	Asn	Glu
		500					505					510		Asn
Leu	Ser	Glu	Glu	Leu	Asn	Gln	Lys	Leu	Ser	Thr	Leu	Asn	Ser	Leu
	515					520						525		Gln
Asn	Glu	Leu	Asp	Gln	Leu	Lys	Asp	Ser	Ser	Met	His	His	Arg	Lys
	530				535					540				Arg
Val	Thr	Asp	Met	Met	Ile	Asn	Leu	Leu	Lys	Asp	Leu	Gly	Asp	Ile
545				550					555					Gly
Thr	Ile	Val	Gly	Gly	Asn	Ala	Ala	Glu	Thr	Lys	Pro	Thr	Ala	Gly
			565					570						575
Gly	Glu	Lys	Ile	Glu	Glu	Glu	Phe	Thr	Val	Ala	Arg	Leu	Tyr	Ile
		580					585					590		Ser
Lys	Met	Lys	Ser	Glu	Val	Lys	Thr	Leu	Val	Ser	Arg	Asn	Asn	Gln
	595					600						605		Leu
Glu	Asn	Thr	Gln	Gln	Asp	Asn	Phe	Lys	Lys	Ile	Glu	Thr	His	Glu
	610				615					620				Lys
Asp	Leu	Ser	Asn	Cys	Lys	Leu	Leu	Ile	Gln	Gln	His	Glu	Ala	Lys
625				630					635					Met
Ala	Ser	Leu	Gln	Glu	Ala	Ile	Lys	Asp	Ser	Glu	Asn	Lys	Lys	Arg
			645					650					655	Met
Leu	Glu	Asp	Asn	Val	Asp	Ser	Leu	Asn	Glu	Glu	Tyr	Ala	Lys	Leu
	660						665					670		Lys
Ala	Gln	Glu	Gln	Met	His	Leu	Ala	Ala	Leu	Ser	Glu	Arg	Glu	Lys
	675					680						685		Glu
Thr	Ser	Gln	Ala	Ser	Glu	Thr	Arg	Glu	Val	Leu	Glu	Lys	Gln	Met
	690				695				700					Glu
Met	His	Arg	Glu	Gln	His	Gln	Lys	Gln	Leu	Gln	Ser	Leu	Arg	Asp
705				710					715					Glu
Ile	Ser	Glu	Lys	Gln	Ala	Thr	Val	Asp	Asn	Leu	Lys	Asp	Asp	Asn
			725					730					735	Gln
Arg	Leu	Ser	Leu	Ala	Leu	Glu	Lys	Leu	Gln	Ala	Asp	Tyr	Asp	Lys
	740						745					750		Leu
Lys	Gln	Glu	Glu	Val	Glu	Lys	Ala	Ala	Lys	Leu	Ala	Asp	Leu	Ser
	755					760					765			Leu
Gln	Ile	Asp	Arg	Arg	Glu	Gln	Ala	Lys	Gln	Asp	Leu	Lys	Gly	Leu
	770				775				780					Glu
Glu	Thr	Val	Ala	Lys	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg	Lys
785				790					795					Leu
Phe	Val	Gln	Asp	Leu	Gln	Asn	Lys	Val	Lys	Lys	Ser	Cys	Ser	Lys
			805					810						Thr

Glu	Glu	Glu	Asp	Glu	Asp	Thr	Gly	Gly	Asn	Ala	Ala	Gln	Lys	Gln	Lys
			820					825					830		
Ile	Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys
		835					840					845			
Gln	Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu
	850				855					860					
Glu	Lys	Arg	Leu	Arg	Ala	Thr	Met	Glu	Arg	Val	Lys	Ser	Leu	Glu	Ser
865					870				875						880
Ala	Leu	Lys	Asp	Ala	Lys	Glu	Gly	Ala	Met	Arg	Asp	Arg	Lys	Arg	Tyr
			885					890						895	
Gln	His	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Gln	Lys	Asn	Leu
			900					905					910		
Ala	Arg	Arg	Gly	His	Ala	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro	Gly
		915					920					925			
Gln	His	Gln	Ser	Val	Ser	Pro	Ala	Gln	Ala	Ala	Ala	Ile	Arg	Gly	Gly
	930					935				940					
Gly	Gly	Leu	Ser	Gln	Asn	Gly	Pro	Met	Ile	Thr	Ser	Thr	Pro	Ile	Arg
945					950				955						960
Met	Ala	Pro	Glu	Ser	Lys	Ala									
				965											

<210> 22
 <211> 963
 <212> PRT
 <213> Mus musculus

<400> 22

Met	Ala	Asp	Pro	Ala	Glu	Cys	Asn	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
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Pro	Leu	Asn	Glu	Ser	Glu	Val	Asn	Arg	Gly	Asp	Lys	Tyr	Val	Ala	Lys
		20					25						30		
Phe	Gln	Gly	Glu	Asp	Thr	Val	Val	Ile	Ala	Ser	Lys	Pro	Tyr	Ala	Phe
	35					40						45			
Asp	Arg	Val	Phe	Gln	Ser	Ser	Thr	Ser	Gln	Glu	Gln	Val	Tyr	Asn	Asp
	50				55						60				
Cys	Ala	Lys	Lys	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly	Thr
65				70					75						80
Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu
			85					90						95	
Gly	Lys	Leu	His	Asp	Pro	Glu	Gly	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val
		100					105						110		
Gln	Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu	Phe
	115					120						125			
His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp
	130				135						140				
Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn
145					150				155						160
Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Cys	Ser	Pro
			165					170						175	
Asp	Glu	Val	Met	Asp	Thr	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His	Val
		180					185						190		
Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile	Phe
	195					200						205			
Leu	Ile	Asn	Val	Lys	Gln	Glu	Asn	Thr	Gln	Thr	Glu	Gln	Lys	Leu	Ser
	210				215						220				
Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys
225					230				235						240
Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys
			245					250						255	
Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly	Ser
		260				265							270		
Thr	Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu	Gln	Asp

Leu	Glu	Glu	Thr	Val	Ala	Lys	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg
785					790					795					800
Lys	Leu	Phe	Val	Gln	Asp	Leu	Ala	Thr	Arg	Val	Lys	Lys	Ser	Ala	Glu
				805					810					815	
Val	Asp	Ser	Asp	Asp	Thr	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln	Lys	Ile
			820					825					830		
Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys	Gln
		835					840					845			
Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu	Glu
	850					855					860				
Phe	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu	Ser	Ala
865					870					875					880
Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Ser	Arg	Asp	Arg	Lys	Arg	Tyr	Gln
				885					890					895	
Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ser	Lys	Asn	Met	Ala
			900					905					910		
Arg	Arg	Gly	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro	Gly	Gln
		915					920					925			
His	Pro	Ala	Ala	Ser	Pro	Thr	His	Pro	Gly	Thr	Val	Arg	Gly	Gly	Gly
	930					935					940				
Ser	Phe	Val	Gln	Asn	Asn	Gln	Pro	Val	Gly	Leu	Arg	Gly	Gly	Gly	Gly
945					950					955					960
Lys	Gln	Ser													

<210> 23
 <211> 928
 <212> PRT
 <213> Neurospora crassa

<400> 23															
Met	Ser	Ser	Ser	Ala	Asn	Ser	Ile	Lys	Val	Val	Ala	Arg	Phe	Arg	Pro
1				5					10					15	
Gln	Asn	Arg	Val	Glu	Ile	Glu	Ser	Gly	Gly	Gln	Pro	Ile	Val	Thr	Phe
			20					25					30		
Gln	Gly	Pro	Asp	Thr	Cys	Thr	Val	Asp	Ser	Lys	Glu	Ala	Gln	Gly	Ser
		35					40					45			
Phe	Thr	Phe	Asp	Arg	Val	Phe	Asp	Met	Ser	Cys	Lys	Gln	Ser	Asp	Ile
	50					55				60					
Phe	Asp	Phe	Ser	Ile	Lys	Pro	Thr	Val	Asp	Asp	Ile	Leu	Asn	Gly	Tyr
65					70					75					80
Asn	Gly	Thr	Val	Phe	Ala	Tyr	Gly	Gln	Thr	Gly	Ala	Gly	Lys	Ser	Tyr
				85					90					95	
Thr	Met	Met	Gly	Thr	Ser	Ile	Asp	Asp	Pro	Asp	Gly	Arg	Gly	Val	Ile
			100					105					110		
Pro	Arg	Ile	Val	Glu	Gln	Ile	Phe	Thr	Ser	Ile	Leu	Ser	Ser	Ala	Ala
			115				120					125			
Asn	Ile	Glu	Tyr	Thr	Val	Arg	Val	Ser	Tyr	Met	Glu	Ile	Tyr	Met	Glu
	130					135					140				
Arg	Ile	Arg	Asp	Leu	Leu	Ala	Pro	Gln	Asn	Asp	Asn	Leu	Pro	Val	His
145					150					155					160
Glu	Glu	Lys	Asn	Arg	Gly	Val	Tyr	Val	Lys	Gly	Leu	Leu	Glu	Ile	Tyr
			165						170					175	
Val	Ser	Ser	Val	Gln	Glu	Val	Tyr	Glu	Val	Met	Arg	Arg	Gly	Gly	Asn
			180					185					190		
Ala	Arg	Ala	Val	Ala	Ala	Thr	Asn	Met	Asn	Gln	Glu	Ser	Ser	Arg	Ser
		195					200					205			
His	Ser	Ile	Phe	Val	Ile	Thr	Ile	Thr	Gln	Lys	Asn	Val	Glu	Thr	Gly
	210					215					220				
Ser	Ala	Lys	Ser	Gly	Gln	Leu	Phe	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu
225					230					235					240
Lys	Val	Gly	Lys	Thr	Gly	Ala	Ser	Gly	Gln	Thr	Leu	Glu	Glu	Ala	Lys

Lys	Ile	Asn	Lys	245	Ser	Leu	Ser	Ala	Leu	250	Gly	Met	Val	Ile	Asn	255	Ala	Leu
Thr	Asp	Gly	Lys	260	Ser	Ser	His	Val	Pro	265	Tyr	Arg	Asp	Ser	Lys	270	Leu	Thr
Arg	Ile	Leu	Gln	275	Glu	Ser	Leu	Gly	Gly	280	Asn	Ser	Arg	Thr	Thr	285	Leu	Ile
Ile	Asn	Cys	Ser	290	Pro	Ser	Ser	Tyr	Asn	295	Asp	Ala	Glu	Thr	Leu	300	Ser	Thr
305							310					315						320
Leu	Arg	Phe	Gly	325	Met	Arg	Ala	Lys	Ser	330	Ile	Lys	Asn	Lys	Ala	335	Lys	Val
Asn	Ala	Glu	Leu	340	Ser	Pro	Ala	Glu	Leu	345	Lys	Gln	Met	Leu	Ala	350	Lys	Ala
Lys	Thr	Gln	Ile	355	Thr	Ser	Phe	Glu	Asn	360	Tyr	Ile	Val	Asn	Leu	365	Glu	Ser
Glu	Val	Gln	Val	370	Trp	Arg	Gly	Gly	Glu	375	Thr	Val	Pro	Lys	Glu	380	Lys	Trp
Val	Pro	Pro	Leu	385	Glu	Leu	Ala	Ile	Thr	390	Pro	Ser	Lys	Ser	Ala	395	Ser	Thr
Thr	Ala	Arg	Pro	405	Ser	Thr	Pro	Ser	Arg	410	Leu	Pro	Glu	Ser	Arg	415	Arg	Ala
Glu	Thr	Pro	Ala	420	Ile	Ser	Asp	Arg	Ala	425	Gly	Thr	Pro	Ser	Leu	430	Pro	Leu
Asp	Lys	Asp	Glu	435	Arg	Glu	Glu	Phe	Leu	440	Arg	Arg	Glu	Asn	Glu	445	Leu	Gln
Asp	Gln	Ile	Ala	450	Glu	Lys	Glu	Ser	Ile	455	Ala	Ala	Ala	Glu	Arg	460	Gln	
Leu	Arg	Glu	Thr	465	Lys	Glu	Leu	Ile	Ala	470	Leu	Lys	Asp	His	Asp	475	Ser	
Lys	Leu	Gly	Lys	485	Glu	Asn	Glu	Arg	Leu	490	Ile	Ser	Glu	Ser	Asn	495	Glu	Phe
Lys	Met	Gln	Leu	500	Glu	Arg	Leu	Ala	Phe	505	Glu	Asn	Lys	Glu	Ala	510	Gln	Ile
Thr	Ile	Asp	Gly	515	Leu	Lys	Asp	Ala	Asn	520	Ser	Glu	Leu	Thr	Ala	525	Glu	Leu
Asp	Glu	Val	Lys	530	Gln	Gln	Met	Leu	Asp	535	Met	Lys	Met	Ser	Ala	540	Lys	Glu
Thr	Ser	Ala	Val	545	Leu	Asp	Glu	Lys	Glu	550	Lys	Lys	Lys	Ala	Glu	555	Lys	Met
Ala	Lys	Met	Met	565	Ala	Gly	Phe	Asp	Leu	570	Ser	Gly	Asp	Val	Phe	575	Ser	Asp
Asn	Glu	Arg	Ala	580	Val	Ala	Asp	Ala	Ile	585	Ala	Gln	Leu	Asp	Ala	590	Leu	Phe
Glu	Ile	Ser	Ser	595	Ala	Gly	Asp	Ala	Ile	600	Pro	Pro	Glu	Asp	Ile	605	Lys	Ala
Leu	Arg	Glu	Lys	610	Leu	Val	Glu	Thr	Gln	615	Gly	Phe	Val	Arg	Gln	620	Ala	Glu
Leu	Ser	Ser	Phe	625	Ser	Ala	Ala	Ser	Ser	630	Asp	Ala	Glu	Ala	Arg	635	Lys	Arg
Ala	Glu	Leu	Glu	645	Ala	Arg	Leu	Glu	Ala	650	Leu	Gln	Gln	Glu	His	655	Glu	Glu
Leu	Leu	Ser	Arg	660	Asn	Leu	Thr	Glu	Ala	665	Asp	Lys	Glu	Glu	Val	670	Lys	Ala
Leu	Leu	Ala	Lys	675	Ser	Leu	Ser	Asp	Lys	680	Ser	Ala	Val	Gln	Val	685	Glu	Leu
Val	Glu	Gln	Leu	690	Lys	Ala	Asp	Ile	Ala	695	Leu	Lys	Asn	Ser	Glu	700	Thr	Glu
His	Leu	Lys	Ala	705	Leu	Val	Asp	Asp	Leu	710	Gln	Arg	Arg	Val	Lys	715	Ala	Gly
Gly	Ala	Gly	Val	725	Ala	Met	Ala	Asn	Gly	730	Lys	Thr	Val	Gln	Gln	735	Gln	Leu
Ala	Glu	Phe	Asp	740	Val	Met	Lys	Lys	Ser	745	Leu	Met	Arg	Asp	Leu	750	Gln	Asn

Arg	Cys	Glu	Arg	Val	Val	Glu	Leu	Glu	Ile	Ser	Leu	Asp	Glu	Thr	Arg
		755					760					765			
Glu	Gln	Tyr	Asn	Asn	Val	Leu	Arg	Ser	Ser	Asn	Asn	Arg	Ala	Gln	Gln
		770					775					780			
Lys	Lys	Met	Ala	Phe	Leu	Glu	Arg	Asn	Leu	Glu	Gln	Leu	Thr	Gln	Val
		785					790				795				800
Gln	Arg	Gln	Leu	Val	Glu	Gln	Asn	Ser	Ala	Leu	Lys	Lys	Glu	Val	Ala
				805					810						815
Ile	Ala	Glu	Arg	Lys	Leu	Met	Ala	Arg	Asn	Glu	Arg	Ile	Gln	Ser	Leu
			820					825					830		
Glu	Ser	Leu	Leu	Gln	Glu	Ser	Gln	Glu	Lys	Met	Ala	Gln	Ala	Asn	His
			835					840					845		
Lys	Phe	Glu	Val	Gln	Leu	Ala	Ala	Val	Lys	Asp	Arg	Leu	Glu	Ala	Ala
			850				855					860			
Lys	Ala	Gly	Ser	Thr	Arg	Gly	Leu	Gly	Thr	Asp	Ala	Gly	Leu	Gly	Gly
					870					875					880
Phe	Ser	Ile	Gly	Ser	Arg	Ile	Ala	Lys	Pro	Leu	Arg	Gly	Gly	Gly	Asp
				885					890						895
Ala	Val	Ala	Gly	Ala	Thr	Ala	Thr	Asn	Pro	Thr	Ile	Ala	Thr	Leu	Gln
			900					905					910		
Gln	Asn	Pro	Pro	Glu	Asn	Lys	Arg	Ser	Ser	Trp	Phe	Phe	Gln	Lys	Ser
			915				920					925			

<210> 24
 <211> 1031
 <212> PRT
 <213> Strongylocentrotus purpuratus

<400> 24															
Met	Ala	Asp	Pro	Ala	Glu	Cys	Asn	Ile	Lys	Val	Val	Cys	Arg	Val	Arg
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Pro	Met	Asn	Ala	Thr	Glu	Gln	Asn	Thr	Ser	His	Ile	Cys	Thr	Lys	Phe
			20					25					30		
Ile	Ser	Glu	Glu	Gln	Val	Gln	Ile	Gly	Gly	Lys	Leu	Asn	Met	Phe	Asp
			35				40					45			
Arg	Ile	Phe	Lys	Pro	Asn	Thr	Thr	Gln	Glu	Glu	Val	Tyr	Asn	Lys	Ala
			50			55					60				
Ala	Arg	Gln	Ile	Val	Lys	Asp	Val	Leu	Asp	Gly	Tyr	Asn	Gly	Thr	Ile
					70				75						80
Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	Phe	Thr	Met	Glu	Gly
				85				90					95		
Val	Met	Gly	Asn	Pro	Gln	Tyr	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val	Gln
			100					105					110		
Asp	Ile	Phe	Asn	His	Ile	Tyr	Gln	Met	Asp	Glu	Ser	Leu	Glu	Phe	His
			115				120					125			
Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Met	Asp	Arg	Ile	Arg	Asp	Leu
			130			135					140				
Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn	Arg
					150					155					160
Val	Pro	Phe	Val	Lys	Gly	Ala	Thr	Glu	Arg	Phe	Ala	Ser	Ser	Pro	Glu
				165					170					175	
Glu	Val	Met	Asp	Val	Ile	Glu	Glu	Gly	Lys	Ser	Asn	Arg	His	Ile	Ala
			180					185					190		
Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile	Phe	Leu
			195				200					205			
Ile	Gln	Val	Lys	Gln	Glu	Asn	Met	Glu	Thr	Lys	Lys	Lys	Leu	Ser	Gly
						215					220				
Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys	Thr
					230					235					240
Gly	Ala	Glu	Gly	Thr	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys	Ser
				245					250					255	
Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Asp	Gly	Lys	Lys

			260					265					270		
Ser	His	Ile	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu	Gln	Glu
		275					280					285			
Ser	Leu	Gly	Gly	Asn	Ala	Arg	Thr	Thr	Ile	Val	Ile	Cys	Cys	Ser	Pro
	290					295					300				
Ser	Ser	Phe	Asn	Glu	Ser	Glu	Ser	Lys	Ser	Thr	Leu	Met	Phe	Gly	Gln
305					310					315					320
Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Val	Thr	Val	Asn	Met	Glu	Leu	Thr
				325					330					335	
Ala	Glu	Glu	Trp	Arg	Asn	Arg	Tyr	Glu	Lys	Glu	Lys	Glu	Lys	Asn	Gly
			340					345					350		
Arg	Leu	Lys	Ala	Gln	Leu	Leu	Ile	Leu	Glu	Asn	Glu	Leu	Gln	Arg	Trp
		355					360					365			
Arg	Ala	Gly	Glu	Ser	Val	Pro	Val	Lys	Glu	Gln	Gly	Asn	Lys	Asn	Asp
	370					375					380				
Glu	Ile	Leu	Lys	Glu	Met	Met	Lys	Pro	Lys	Gln	Met	Thr	Val	His	Val
385					390					395					400
Ser	Glu	Glu	Glu	Lys	Asn	Lys	Trp	Glu	Glu	Glu	Lys	Val	Lys	Leu	Tyr
				405					410					415	
Glu	Gln	Leu	Asp	Glu	Lys	Asp	Ser	Glu	Ile	Asp	Asn	Gln	Ser	Arg	Leu
			420					425					430		
Thr	Glu	Lys	Leu	Lys	Gln	Gln	Met	Leu	Glu	Gln	Glu	Glu	Leu	Leu	Ser
		435					440					445			
Ser	Met	Gln	Arg	Asp	Tyr	Glu	Leu	Leu	Gln	Ser	Gln	Met	Gly	Arg	Leu
	450					455					460				
Glu	Ala	Glu	Asn	Ala	Ala	Ala	Lys	Glu	Glu	Ala	Lys	Glu	Val	Leu	Gln
465					470					475					480
Ala	Leu	Glu	Glu	Met	Ala	Val	Asn	Tyr	Asp	Glu	Lys	Ser	Lys	Glu	Val
				485					490					495	
Glu	Asp	Lys	Asn	Arg	Met	Asn	Glu	Thr	Leu	Ser	Glu	Glu	Val	Asn	Glu
			500					505					510		
Lys	Met	Thr	Ala	Leu	His	Thr	Thr	Ser	Thr	Glu	Leu	Gln	Lys	Leu	Gln
		515					520					525			
Glu	Leu	Glu	Gln	His	Gln	Arg	Arg	Arg	Ile	Thr	Glu	Met	Met	Ala	Ser
	530					535					540				
Leu	Leu	Lys	Asp	Leu	Gly	Glu	Ile	Gly	Thr	Ala	Leu	Gly	Gly	Asn	Ala
545					550					555					560
Ala	Asp	Met	Lys	Pro	Asn	Val	Glu	Asn	Ile	Glu	Lys	Val	Asp	Glu	Glu
				565					570					575	
Phe	Thr	Met	Ala	Arg	Leu	Phe	Val	Ser	Lys	Met	Lys	Thr	Glu	Val	Lys
			580					585					590		
Thr	Met	Ser	Gln	Arg	Cys	Lys	Ile	Leu	Glu	Ala	Ser	Asn	Ala	Glu	Asn
		595					600					605			
Glu	Thr	Lys	Ile	Arg	Thr	Ser	Glu	Asp	Glu	Leu	Asp	Ser	Cys	Arg	Met
	610														

Arg	Arg	Glu	Gln	Ala	Lys	Gln	Asp	Leu	Lys	Gly	Leu	Glu	Glu	Thr	Val
770						775					780				
Ala	Lys	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg	Lys	Leu	Phe	Val	Ser
785					790					795					800
Asp	Leu	Gln	Asn	Arg	Val	Lys	Lys	Ala	Leu	Glu	Gly	Gly	Asp	Arg	Asp
			805					810						815	
Asp	Asp	Ser	Gly	Gly	Ser	Gln	Ala	Gln	Lys	Gln	Lys	Ile	Ser	Phe	Leu
		820					825						830		
Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys	Gln	Leu	Val	Arg
	835						840					845			
Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu	Glu	Arg	Arg	Leu
	850					855					860				
Arg	Ala	Thr	Ser	Glu	Arg	Val	Lys	Ala	Leu	Glu	Met	Ser	Leu	Lys	Glu
865					870					875					880
Thr	Lys	Glu	Gly	Ala	Met	Arg	Asp	Arg	Lys	Arg	Tyr	Gln	Gln	Glu	Val
			885					890						895	
Asp	Arg	Ile	Arg	Glu	Ala	Val	Arg	Gln	Arg	Asn	Phe	Ala	Lys	Arg	Gly
		900					905					910			
Ser	Ser	Ala	Gln	Ile	Ala	Lys	Ala	Ile	Arg	Ala	Gly	His	Pro	Pro	Pro
	915					920						925			
Ser	Pro	Gly	Gly	Ser	Thr	Gly	Ile	Arg	Gly	Gly	Gly	Tyr	Ser	Gly	Ile
	930					935					940				
Arg	Gly	Gly	Gly	Ser	Pro	Val	Ile	Arg	Pro	Pro	Ser	His	Gly	Ser	Pro
945					950				955						960
Glu	Pro	Ile	Ser	His	Asn	Asn	Ser	Phe	Glu	Lys	Ser	Leu	Asn	Pro	Asn
			965					970						975	
Asp	Ala	Glu	Asn	Met	Glu	Lys	Lys	Ala	Asn	Lys	Arg	Leu	Pro	Lys	Leu
		980					985						990		
Pro	Pro	Gly	Gly	Asn	Lys	Leu	Thr	Glu	Ser	Asp	Ile	Ala	Ala	Met	Lys
	995					1000						1005			
Ala	Arg	Ser	Lys	Ala	Arg	Asn	Asn	Thr	Pro	Gly	Lys	Ala	Pro	Leu	Thr
1010						1015					1020				
Thr	Ser	Gly	Glu	Gln	Gly	Ser									
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<210> 25
 <211> 935
 <212> PRT
 <213> Syncephalastrum racemosum

<400> 25

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		20						25					30		
Glu	Gly	Thr	Gln	Leu	Glu	Leu	Lys	Gly	Lys	Glu	Phe	Lys	Gly	Asn	Phe
		35					40					45			
Asn	Phe	Asp	Lys	Val	Phe	Gly	Met	Asn	Thr	Ala	Gln	Lys	Asp	Val	Phe
	50					55				60					
Asp	Tyr	Ser	Ile	Lys	Thr	Ile	Val	Asp	Asp	Val	Thr	Ala	Gly	Tyr	Asn
65					70				75						80
Gly	Thr	Val	Phe	Ala	Tyr	Gly	Gln	Thr	Gly	Ser	Gly	Lys	Thr	Phe	Thr
			85					90						95	
Met	Met	Gly	Ala	Asp	Ile	Asp	Asp	Glu	Lys	Thr	Lys	Gly	Ile	Ile	Pro
		100					105						110		
Arg	Ile	Val	Glu	Gln	Ile	Phe	Asp	Ser	Ile	Met	Ala	Ser	Pro	Ser	Asn
	115						120					125			
Leu	Glu	Phe	Thr	Val	Lys	Val	Ser	Tyr	Met	Glu	Ile	Tyr	Met	Glu	Lys
	130					135					140				
Val	Arg	Asp	Leu	Leu	Asn	Pro	Ser	Ser	Glu	Asn	Leu	Pro	Ile	His	Glu
145					150				155						160
Asp	Lys	Thr	Lys	Gly	Val	Tyr	Val	Lys	Gly	Leu	Leu	Glu	Val	Tyr	Val

				165					170					175			
Gly	Ser	Thr	Asp	Glu	Val	Tyr	Glu	Val	Met	Arg	Arg	Gly	Ser	Asn	Asn		
			180						185					190			
Arg	Val	Val	Ala	Tyr	Thr	Asn	Met	Asn	Ala	Glu	Ser	Ser	Arg	Ser	His		
		195					200						205				
Ser	Ile	Val	Met	Phe	Thr	Ile	Thr	Gln	Lys	Asn	Val	Asp	Thr	Gly	Ala		
	210					215						220					
Ala	Lys	Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys		
225					230					235					240		
Val	Gly	Lys	Thr	Gly	Ala	Ser	Gly	Gln	Thr	Leu	Glu	Glu	Ala	Lys	Lys		
				245					250					255			
Ile	Asn	Lys	Ser	Leu	Thr	Ala	Leu	Gly	Met	Val	Ile	Asn	Ala	Leu	Thr		
			260					265					270				
Asp	Gly	Lys	Ser	Ser	His	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Leu	Thr	Arg		
		275					280					285					
Ile	Leu	Gln	Glu	Ser	Leu	Gly	Gly	Asn	Ser	Arg	Thr	Thr	Leu	Ile	Ile		
	290					295					300						
Asn	Cys	Ser	Pro	Ser	Ser	Tyr	Asn	Glu	Ala	Glu	Thr	Leu	Ser	Thr	Leu		
305					310					315					320		
Arg	Phe	Gly	Ala	Arg	Ala	Lys	Ser	Ile	Lys	Asn	Lys	Ala	Lys	Val	Asn		
				325					330					335			
Ala	Asp	Leu	Ser	Pro	Ala	Glu	Leu	Lys	Ala	Leu	Leu	Lys	Lys	Val	Lys		
			340					345					350				
Ser	Glu	Ala	Val	Thr	Tyr	Gln	Thr	Tyr	Ile	Ala	Ala	Leu	Glu	Gly	Glu		
	355						360					365					
Val	Asn	Val	Trp	Arg	Thr	Gly	Gly	Thr	Val	Pro	Glu	Gly	Lys	Trp	Val		
	370					375					380						
Thr	Met	Asp	Lys	Val	Ser	Lys	Gly	Asp	Phe	Ala	Gly	Leu	Pro	Pro	Ala		
385					390				395						400		
Pro	Gly	Phe	Lys	Ser	Pro	Val	Ser	Asp	Glu	Gly	Ser	Arg	Pro	Ala	Thr		
				405				410						415			
Pro	Val	Pro	Thr	Leu	Glu	Lys	Asp	Glu	Arg	Glu	Glu	Phe	Ile	Lys	Arg		
			420					425					430				
Glu	Asn	Glu	Leu	Met	Asp	Gln	Ile	Ser	Glu	Lys	Glu	Thr	Glu	Leu	Thr		
		435				440						445					
Asn	Arg	Glu	Lys	Leu	Leu	Glu	Ser	Leu	Arg	Glu	Glu	Met	Gly	Tyr	Tyr		
	450					455				460							
Lys	Glu	Gln	Glu	Gln	Ser	Val	Thr	Lys	Glu	Asn	Gln	Gln	Met	Thr	Ser		
465					470					475					480		
Glu	Leu	Ser	Glu	Leu	Arg	Leu	Gln	Leu	Gln	Lys	Val	Ser	Tyr	Glu	Ser		
				485				490						495			
Lys	Glu	Asn	Ala	Ile	Thr	Val	Asp	Ser	Leu	Lys	Glu	Ala	Asn	Gln	Asp		
			500					505					510				
Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Lys	Lys	Asn	Leu	Ser	Glu	Met	Arg		
		515					520					525					
Gln	Ala	His	Lys	Asp	Ala	Thr	Asp	Ser	Asp	Lys	Glu	Lys	Arg	Lys	Ala		
	530					535					540						
Glu	Lys	Met	Ala	Gln	Met	Met	Ser	Gly	Phe	Asp	Pro	Ser	Gly	Ile	Leu		
545					550					555					560		
Asn	Asp	Lys	Glu	Arg	Gln	Ile	Arg	Asn	Ala	Leu	Ser	Lys	Leu	Asp	Gly		
				565				570						575			
Glu	Gln	Gln	Gln	Thr	Leu	Thr	Val	Glu	Asp	Leu	Val	Ser	Leu	Arg	Arg		
			580					585					590				
Glu	Leu	Ala	Glu	Ser	Lys	Met	Leu	Val	Glu	Gln	His	Thr	Lys	Thr	Ile		
		595					600					605					
Ser	Asp	Leu	Ser	Ala	Asp	Lys	Asp	Ala	Met	Glu	Ala	Lys	Lys	Ile	Glu		
	610					615					620						
Leu	Glu	Gly	Arg	Leu	Gly	Ala	Leu	Glu	Lys	Glu	Tyr	Glu	Glu	Leu	Leu		
625					630					635					640		
Asp	Lys	Thr	Ile	Ala	Glu	Glu	Glu	Ala	Asn	Met	Gln	Asn	Ala	Asp	Val		
				645				650						655			
Asp	Asn	Leu	Ser	Ala	Leu	Lys	Thr	Lys	Leu	Glu	Ala	Gln	Tyr	Ala	Glu		
			660					665					670				

Lys	Lys	Glu	Val	Gln	Gln	Lys	Glu	Ile	Asp	Asp	Leu	Lys	Arg	Glu	Leu
		675					680					685			
Asp	Arg	Lys	Gln	Ser	Gly	His	Glu	Lys	Leu	Ser	Ala	Ala	Met	Thr	Asp
	690					695					700				
Leu	Arg	Ala	Ala	Asn	Asp	Gln	Leu	Gln	Ala	Ala	Leu	Ser	Glu	Gln	Pro
705					710					715					720
Phe	Gln	Ala	Pro	Gln	Asp	Asn	Ser	Asp	Met	Thr	Glu	Lys	Glu	Lys	Asp
				725					730					735	
Ile	Glu	Arg	Thr	Arg	Lys	Ser	Met	Ala	Gln	Gln	Leu	Ala	Asp	Phe	Glu
			740					745					750		
Val	Met	Lys	Lys	Ala	Leu	Met	Arg	Asp	Leu	Gln	Asn	Arg	Cys	Glu	Lys
	755						760					765			
Val	Val	Glu	Leu	Glu	Met	Ser	Leu	Asp	Glu	Thr	Arg	Glu	Gln	Tyr	Asn
	770					775					780				
Asn	Val	Leu	Arg	Ala	Ser	Asn	Asn	Lys	Ala	Gln	Gln	Lys	Lys	Met	Ala
785					790					795					800
Phe	Leu	Glu	Arg	Asn	Leu	Glu	Gln	Leu	Thr	Asn	Val	Gln	Lys	Gln	Leu
				805					810					815	
Val	Glu	Gln	Asn	Ala	Ser	Leu	Lys	Lys	Glu	Val	Ala	Leu	Ala	Glu	Arg
			820					825					830		
Lys	Leu	Ile	Ala	Arg	Asn	Glu	Arg	Ile	Gln	Ser	Leu	Glu	Thr	Leu	Leu
	835						840					845			
His	Asn	Ala	Gln	Asp	Lys	Leu	Leu	Asn	Gln	Asn	Lys	Lys	Phe	Glu	Gln
	850					855					860				
Gln	Leu	Ala	Thr	Val	Arg	Glu	Arg	Leu	Glu	Gln	Ala	Arg	Ser	Gln	Lys
865					870					875					880
Ser	Gln	Asn	Ser	Leu	Ala	Ala	Leu	Asn	Phe	Ser	Arg	Ile	Ala	Lys	Pro
				885					890					895	
Leu	Arg	Gly	Asn	Gly	Ala	Ala	Ile	Asp	Asn	Gly	Ser	Asp	Asp	Gly	Ser
			900					905					910		
Leu	Pro	Thr	Ser	Pro	Thr	Asp	Lys	Arg	Asp	Lys	Arg	Ser	Ser	Trp	Met
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Pro	Gly	Phe	Met	Asn	Ser	Arg									
	930					935									

<210> 26
 <211> 1032
 <212> PRT
 <213> Homo sapiens

<400> 26

Met	Ala	Glu	Thr	Asn	Asn	Glu	Cys	Ser	Ile	Lys	Val	Leu	Cys	Arg	Phe
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			20					25					30		
Ile	Phe	Gln	Gly	Asp	Asp	Ser	Val	Val	Ile	Gly	Gly	Lys	Pro	Tyr	Val
	35					40						45			
Phe	Asp	Arg	Val	Phe	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	His
	50					55					60				
Ala	Cys	Ala	Met	Gln	Ile	Val	Lys	Asp	Val	Leu	Ala	Gly	Tyr	Asn	Gly
65					70					75					80
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
				85					90					95	
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
			100					105					110		
Ala	Arg	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
		115					120					125			
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
	130					135					140				
Asp	Leu	Leu	Asp	Val	Thr	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys
145					150					155					160
Asn	Arg	Val	Pro	Phe	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser

				165					170					175			
Pro	Glu	Glu	Ile	Leu	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His		
			180					185					190				
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile		
		195					200					205					
Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Met	Glu	Thr	Glu	Gln	Lys	Leu		
	210					215					220						
Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser		
225					230					235					240		
Lys	Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn		
			245					250						255			
Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly		
		260					265						270				
Thr	Lys	Ser	Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu		
	275						280					285					
Gln	Asp	Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Met	Phe	Ile	Cys	Cys		
	290					295					300						
Ser	Pro	Ser	Ser	Tyr	Asn	Asp	Ala	Glu	Thr	Lys	Ser	Thr	Leu	Met	Phe		
305					310					315					320		
Gly	Gln	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Ala	Ser	Val	Asn	Leu	Glu		
			325						330					335			
Leu	Thr	Ala	Glu	Gln	Trp	Lys	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys		
		340					345						350				
Thr	Lys	Ala	Gln	Lys	Glu	Thr	Ile	Ala	Lys	Leu	Glu	Ala	Glu	Leu	Ser		
	355						360					365					
Arg	Trp	Arg	Asn	Gly	Glu	Asn	Val	Pro	Glu	Thr	Glu	Arg	Leu	Ala	Gly		
	370					375					380						
Glu	Glu	Ala	Ala	Leu	Gly	Ala	Glu	Leu	Cys	Glu	Glu	Thr	Pro	Val	Asn		
385					390					395					400		
Asp	Asn	Ser	Ser	Ile	Val	Val	Arg	Ile	Ala	Pro	Glu	Glu	Arg	Gln	Lys		
			405						410					415			
Tyr	Glu	Glu	Glu	Ile	Arg	Arg	Leu	Tyr	Lys	Gln	Leu	Asp	Asp	Lys	Asp		
		420						425					430				
Asp	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Ile	Glu	Lys	Leu	Lys	Gln	Gln		
	435						440					445					
Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Val	Ser	Thr	Arg	Gly	Asp	Asn	Glu		
	450					455					460						
Lys	Val	Gln	Arg	Glu	Leu	Ser	His	Leu	Gln	Ser	Glu	Asn	Asp	Ala	Ala		
465					470					475					480		
Lys	Asp	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu	Leu	Ala	Val		
			485						490					495			
Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Glu	Lys	Ser	Gln	Gln	Asn		
		500						505					510				
Gln	Leu	Leu	Val	Asp	Glu	Leu	Ser	Gln	Lys	Val	Ala	Thr	Met	Leu	Ser		
	515						520					525					
Leu	Glu	Ser	Glu	Leu	Gln	Arg	Leu	Gln	Glu	Val	Ser	Gly	His	Gln	Arg		
	530					535					540						
Lys	Arg	Ile	Ala	Glu	Val	Leu	Asn	Gly	Leu	Met	Lys	Asp	Leu	Ser	Glu		
545					550					555					560		
Phe	Ser	Val	Ile	Val	Gly	Asn	Gly	Glu	Ile	Lys	Leu	Pro	Val	Glu	Ile		
			565					570						575			
Ser	Gly	Ala	Ile	Glu	Glu	Glu	Phe	Thr	Val	Ala	Arg	Leu	Tyr	Ile	Ser		
		580						585					590				
Lys	Ile	Lys	Ser	Glu	Val	Lys	Ser	Val	Val	Lys	Arg	Cys	Arg	Gln	Leu		
	595						600					605					
Glu	Asn	Leu	Gln	Val	Glu	Cys	His	Arg	Lys	Met	Glu	Val	Thr	Gly	Arg		
	610					615					620						
Glu	Leu	Ser	Ser	Cys	Gln	Leu	Leu	Ile	Ser	Gln	His	Glu	Ala	Lys	Ile		
625					630					635					640		
Arg	Ser	Leu	Thr	Glu	Tyr	Met	Gln	Ser	Val	Glu	Leu	Lys	Lys	Arg	His		
			645					650						655			
Leu	Glu	Glu	Ser	Tyr	Asp	Ser	Leu	Ser	Asp	Glu	Leu	Ala	Lys	Leu	Gln		
		660						665					670				

Ala	Gln	Glu	Thr	Val	His	Glu	Val	Ala	Leu	Lys	Asp	Lys	Glu	Pro	Asp	
		675					680					685				
Thr	Gln	Asp	Ala	Asp	Glu	Val	Lys	Lys	Ala	Leu	Glu	Leu	Gln	Met	Glu	
		690				695					700					
Ser	His	Arg	Glu	Ala	His	His	Arg	Gln	Leu	Ala	Arg	Leu	Arg	Asp	Glu	
705					710					715					720	
Ile	Asn	Glu	Lys	Gln	Lys	Thr	Ile	Asp	Glu	Leu	Lys	Asp	Leu	Asn	Gln	
				725					730					735		
Lys	Leu	Gln	Leu	Glu	Leu	Glu	Lys	Leu	Gln	Ala	Asp	Tyr	Glu	Lys	Leu	
			740					745					750			
Lys	Ser	Glu	Glu	His	Glu	Lys	Ser	Thr	Lys	Leu	Gln	Glu	Leu	Thr	Phe	
		755					760					765				
Leu	Tyr	Glu	Arg	His	Glu	Gln	Ser	Lys	Gln	Asp	Leu	Lys	Gly	Leu	Glu	
	770					775					780					
Glu	Thr	Val	Ala	Arg	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg	Lys	Leu	
785					790					795						800
Phe	Val	Gln	Asp	Val	Thr	Thr	Arg	Val	Lys	Lys	Ser	Ala	Glu	Met	Glu	
				805					810					815		
Pro	Glu	Asp	Ser	Gly	Gly	Ile	His	Ser	Gln	Lys	Gln	Lys	Ile	Ser	Phe	
			820					825					830			
Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His	Lys	Gln	Leu	Val	
		835					840					845				
Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu	Glu	Lys	Arg	
	850					855					860					
Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu	Gly	Ala	Leu	Lys	
865					870					875					880	
Glu	Ala	Lys	Glu	Gly	Ala	Met	Lys	Asp	Lys	Arg	Arg	Tyr	Gln	Gln	Glu	
				885					890					895		
Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Tyr	Lys	Ser	Ser	Gly	Lys	Arg	
			900					905					910			
Ala	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Val	Arg	Pro	Gly	His	Tyr	Pro	
		915					920					925				
Ala	Ser	Ser	Pro	Thr	Asn	Pro	Tyr	Gly	Thr	Arg	Ser	Pro	Glu	Cys	Ile	
	930					935					940					
Ser	Tyr	Thr	Asn	Ser	Leu	Phe	Gln	Asn	Tyr	Gln	Asn	Leu	Tyr	Leu	Gln	
945					950					955					960	
Ala	Thr	Pro	Ser	Ser	Thr	Ser	Asp	Met	Tyr	Phe	Ala	Asn	Ser	Cys	Thr	
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Ser	Ser	Gly	Ala	Thr	Ser	Ser	Gly	Gly	Pro	Leu	Ala	Ser	Tyr	Gln	Lys	
			980					985					990			
Ala	Asn	Met	Asp	Asn	Gly	Asn	Ala	Thr	Asp	Ile	Asn	Asp	Asn	Arg	Ser	
		995					1000					1005				
Asp	Leu	Pro	Cys	Gly	Tyr	Glu	Ala	Glu	Asp	Gln	Ala	Lys	Leu	Phe	Pro	
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 35 40 45
 Phe Asp Arg Val Phe Pro Pro Asn Thr Thr Gln Glu Gln Val Tyr His
 50 55 60
 Ala Cys Ala Met Gln Ile Val Lys Asp Val Leu Ala Gly Tyr Asn Gly

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Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
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Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
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Ala	Arg	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
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Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
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Asp	Leu	Leu	Asp	Val	Thr	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys
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Asn	Arg	Val	Pro	Phe	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
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Pro	Glu	Glu	Ile	Leu	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His
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Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
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Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Val	Glu	Thr	Glu	Gln	Lys	Leu
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Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser
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Lys	Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn
				245					250					255	
Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly
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Thr	Lys	Ser	Tyr	Val	Pro	Tyr	Arg	Asp	Thr	Lys	Met	Thr	Arg	Ile	Leu
		275					280					285			
Gln	Asp	Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Met	Phe	Ile	Cys	Cys
	290					295					300				
Ser	Pro	Ser	Ser	Tyr	Asn	Asp	Ala	Glu	Thr	Lys	Ser	Thr	Leu	Met	Phe
305					310					315					320
Gly	Gln	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Ala	Ser	Val	Asn	Leu	Glu
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Leu	Thr	Ala	Glu	Gln	Trp	Lys	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys
			340					345					350		
Thr	Lys	Ala	Gln	Lys	Glu	Thr	Ile	Ala	Asn	Val	Glu	Ala	Glu	Leu	Ser
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Arg	Trp	Arg	Asn	Gly	Glu	Asn	Val	Pro	Glu	Thr	Glu	Arg	Leu	Ala	Gly
	370					375					380				
Glu	Asp	Ser	Ala	Leu	Gly	Ala	Glu	Leu	Cys	Glu	Glu	Thr	Pro	Val	Asn
385					390					395					400
Asp	Asn	Ser	Ser	Ile	Val	Val	Arg	Ile	Ala	Pro	Glu	Glu	Arg	Gln	Lys
				405					410					415	
Tyr	Glu	Glu	Glu	Ile	Arg	Arg	Leu	Tyr	Lys	Gln	Leu	Asp	Asp	Lys	Asp
			420					425					430		
Asp	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Ile	Glu	Lys	Leu	Lys	Gln	Gln
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Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Val	Ser	Thr	Arg	Gly	Asp	Asn	Glu
	450					455				460					
Lys	Val	Gln	Arg	Glu	Leu	Ser	His	Leu	Gln	Ser	Glu	Asn	Asp	Ala	Ala
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Lys	Asp	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu	Leu	Ala	Val
				485					490					495	
Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Glu	Lys	Ser	Gln	Gln	Asn
			500					505					510		
Gln	Leu	Leu	Val	Asp	Glu	Leu	Ser	Gln	Lys	Val	Ala	Thr	Met	Leu	Ser
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Leu	Glu	Ser	Glu	Leu	Gln	Arg	Leu	Gln	Glu	Val	Ser	Gly	His	Gln	Arg
	530					535					540				
Lys	Arg	Ile	Ala	Glu	Val	Leu	Asn	Gly	Leu	Met	Arg	Asp	Leu	Ser	Glu
545					550				555						560
Phe	Ser	Val	Ile	Val	Gly	Asn	Gly	Glu	Ile	Lys	Leu	Pro	Val	Glu	Ile
				565				570						575	

Ser Gly Ala Ile Glu Glu Glu Phe Thr Val Ala Arg Leu Tyr Ile Ser
 580 585 590
 Lys Ile Lys Ser Glu Val Lys Ser Val Val Lys Arg Cys Arg Gln Leu
 595 600 605
 Glu Asn Leu Gln Val Glu Cys His Arg Lys Met Glu Val Thr Gly Arg
 610 615 620
 Glu Leu Ser Ser Cys Gln Leu Leu Ile Ser Gln His Glu Ala Lys Ile
 625 630 635 640
 Arg Ser Leu Thr Glu Tyr Met Gln Thr Val Glu Leu Lys Lys Arg His
 645 650 655
 Leu Glu Glu Ser Tyr Asp Ser Leu Ser Asp Glu Leu Ala Arg Leu Gln
 660 665 670
 Ala His Glu Thr Val His Glu Val Ala Leu Lys Asp Lys Glu Pro Asp
 675 680 685
 Thr Gln Asp Ala Glu Glu Val Lys Lys Ala Leu Glu Leu Gln Met Glu
 690 695 700
 Asn His Arg Glu Ala His His Arg Gln Leu Ala Arg Leu Arg Asp Glu
 705 710 715 720
 Ile Asn Glu Lys Gln Lys Thr Ile Asp Glu Leu Lys Asp Leu Asn Gln
 725 730 735
 Lys Leu Gln Leu Glu Leu Glu Lys Leu Gln Ala Asp Tyr Glu Arg Leu
 740 745 750
 Lys Asn Glu Glu Asn Glu Lys Ser Ala Lys Leu Gln Glu Leu Thr Phe
 755 760 765
 Leu Tyr Glu Arg His Glu Gln Ser Lys Gln Asp Leu Lys Gly Leu Glu
 770 775 780
 Glu Thr Val Ala Arg Glu Leu Gln Thr Leu His Asn Leu Arg Lys Leu
 785 790 795 800
 Phe Val Gln Asp Val Thr Thr Arg Val Lys Lys Ser Ala Glu Met Glu
 805 810 815
 Pro Glu Asp Ser Gly Gly Ile His Ser Gln Lys Gln Lys Ile Ser Phe
 820 825 830
 Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln Leu Val
 835 840 845
 Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu Lys Arg
 850 855 860
 Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Gly Ala Leu Lys
 865 870 875 880
 Glu Ala Lys Glu Gly Ala Met Lys Asp Lys Arg Arg Tyr Gln Gln Glu
 885 890 895
 Val Asp Arg Ile Lys Glu Ala Val Arg Tyr Lys Ser Ser Gly Lys Arg
 900 905 910
 Gly His Ser Ala Gln Ile Ala Lys Pro Val Arg Pro Gly His Tyr Pro
 915 920 925
 Ala Ser Ser Pro Thr Asn Pro Tyr Gly Thr Arg Ser Pro Glu Cys Ile
 930 935 940
 Ser Tyr Thr Asn Asn Leu Phe Gln Asn Tyr Gln Asn Leu His Leu Gln
 945 950 955 960
 Ala Ala Pro Ser Ser Thr Ser Asp Met Tyr Phe Ala Ser Ser Gly Arg
 965 970 975
 Thr Ser Val Ala Pro Leu Ala Ser Tyr Gln Lys Ala Asn Met Asp Asn
 980 985 990
 Gly Asn Ala Thr Asp Ile Asn Asp Asn Arg Ser Asp Leu Pro Cys Gly
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<213> *Saccharomyces cerevisiae*

<400> 28

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		20						25					30				
Gly	Met	His	Thr	Leu	Thr	Pro	Pro	Thr	Cys	Asn	Asn	Gly	Ala	Ala	Thr		
		35					40					45					
Ser	Asp	Ser	Asn	Ile	His	Val	Tyr	Val	Arg	Cys	Arg	Ser	Arg	Asn	Lys		
	50					55					60						
Arg	Glu	Ile	Glu	Glu	Lys	Ser	Ser	Val	Val	Ile	Ser	Thr	Leu	Gly	Pro		
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Gln	Gly	Lys	Glu	Ile	Ile	Leu	Ser	Asn	Gly	Ser	His	Gln	Ser	Tyr	Ser		
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Ser	Ser	Lys	Lys	Thr	Tyr	Gln	Phe	Asp	Gln	Val	Phe	Gly	Ala	Glu	Ser		
			100					105					110				
Asp	Gln	Glu	Thr	Val	Phe	Asn	Ala	Thr	Ala	Lys	Asn	Tyr	Ile	Lys	Glu		
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Met	Leu	His	Gly	Tyr	Asn	Cys	Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Gly		
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Thr	Gly	Lys	Thr	Tyr	Thr	Met	Ser	Gly	Asp	Ile	Asn	Ile	Leu	Gly	Asp		
145					150					155					160		
Val	Gln	Ser	Thr	Asp	Asn	Leu	Leu	Leu	Gly	Glu	His	Ala	Gly	Ile	Ile		
				165					170					175			
Pro	Arg	Val	Leu	Val	Asp	Leu	Phe	Lys	Glu	Leu	Ser	Ser	Leu	Asn	Lys		
			180					185					190				
Glu	Tyr	Ser	Val	Lys	Ile	Ser	Phe	Leu	Glu	Leu	Tyr	Asn	Glu	Asn	Leu		
		195					200					205					
Lys	Asp	Leu	Leu	Ser	Asp	Ser	Glu	Asp	Asp	Asp	Pro	Ala	Val	Asn	Asp		
	210					215					220						
Pro	Lys	Arg	Gln	Ile	Arg	Ile	Phe	Asp	Asn	Asn	Asn	Asn	Asn	Ser	Ser		
225					230					235					240		
Ile	Met	Val	Lys	Gly	Met	Gln	Glu	Ile	Phe	Ile	Asn	Ser	Ala	His	Glu		
				245					250					255			
Gly	Leu	Asn	Leu	Leu	Met	Gln	Gly	Ser	Leu	Lys	Arg	Lys	Val	Ala	Ala		
		260						265					270				
Thr	Lys	Cys	Asn	Asp	Leu	Ser	Ser	Arg	Ser	His	Thr	Val	Phe	Thr	Ile		
		275					280					285					
Thr	Thr	Asn	Ile	Val	Glu	Gln	Asp	Ser	Lys	Asp	His	Gly	Gln	Asn	Lys		
	290					295					300						
Asn	Phe	Val	Lys	Ile	Gly	Lys	Leu	Asn	Leu	Val	Asp	Leu	Ala	Gly	Ser		
305					310					315					320		
Glu	Asn	Ile	Asn	Arg	Ser	Gly	Ala	Glu	Asn	Lys	Arg	Ala	Gln	Glu	Ala		
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Gly	Leu	Ile	Asn	Lys	Ser	Leu	Leu	Thr	Leu	Gly	Arg	Val	Ile	Asn	Ala		
		340						345					350				
Leu	Val	Asp	His	Ser	Asn	His	Ile	Pro	Tyr	Arg	Glu	Ser	Lys	Leu	Thr		
		355				360						365					
Arg	Leu	Leu	Gln	Asp	Ser	Leu	Gly	Gly	Met	Thr	Lys	Thr	Cys	Ile	Ile		
	370					375					380						
Ala	Thr	Ile	Ser	Pro	Ala	Lys	Ile	Ser	Met	Glu	Glu	Thr	Ala	Ser	Thr		
385					390					395					400		
Leu	Glu	Tyr	Ala	Thr	Arg	Ala	Lys	Ser	Ile	Lys	Asn	Thr	Pro	Gln	Val		
				405				410						415			
Asn	Gln	Ser	Leu	Ser	Lys	Asp	Thr	Cys	Leu	Lys	Asp	Tyr	Ile	Gln	Glu		
		420						425					430				
Ile	Glu	Lys	Leu	Arg	Asn	Asp	Leu	Lys	Asn	Ser	Arg	Asn	Lys	Gln	Gly		
		435				440						445					
Ile	Phe	Ile	Thr	Gln	Asp	Gln	Leu	Asp	Leu	Tyr	Glu	Ser	Asn	Ser	Ile		
	450				455						460						
Leu	Ile	Asp	Glu	Gln	Asn	Leu	Lys	Ile	His	Asn	Leu	Arg	Glu	Gln	Ile		
465					470					475					480		

Lys	Lys	Phe	Lys	Glu	Asn	Tyr	Leu	Asn	Gln	Leu	Asp	Ile	Asn	Asn	Leu
				485					490					495	
Leu	Gln	Ser	Glu	Lys	Glu	Lys	Leu	Ile	Ala	Ile	Ile	Gln	Asn	Phe	Asn
			500					505					510		
Val	Asp	Phe	Ser	Asn	Phe	Tyr	Ser	Glu	Ile	Gln	Lys	Ile	His	His	Thr
		515					520					525			
Asn	Leu	Glu	Leu	Met	Asn	Glu	Val	Ile	Gln	Gln	Arg	Asp	Phe	Ser	Leu
	530					535					540				
Glu	Asn	Ser	Gln	Lys	Gln	Tyr	Asn	Thr	Asn	Gln	Asn	Met	Gln	Leu	Lys
545					550					555					560
Ile	Ser	Gln	Gln	Val	Leu	Gln	Thr	Leu	Asn	Thr	Leu	Gln	Gly	Ser	Leu
				565					570					575	
Asn	Asn	Tyr	Asn	Ser	Lys	Cys	Ser	Glu	Val	Ile	Lys	Gly	Val	Thr	Glu
			580					585					590		
Glu	Leu	Thr	Arg	Asn	Val	Asn	Thr	His	Lys	Ala	Lys	His	Asp	Ser	Thr
		595					600					605			
Leu	Lys	Ser	Leu	Leu	Asn	Ile	Thr	Thr	Asn	Leu	Leu	Met	Asn	Gln	Met
	610					615					620				
Asn	Glu	Leu	Val	Arg	Ser	Ile	Ser	Thr	Ser	Leu	Glu	Ile	Phe	Gln	Ser
625					630					635					640
Asp	Ser	Thr	Ser	His	Tyr	Arg	Lys	Asp	Leu	Asn	Glu	Ile	Tyr	Gln	Ser
				645					650					655	
His	Gln	Gln	Phe	Leu	Lys	Asn	Leu	Gln	Asn	Asp	Ile	Lys	Ser	Cys	Leu
			660					665					670		
Asp	Ser	Ile	Gly	Ser	Ser	Ile	Leu	Thr	Ser	Ile	Asn	Glu	Ile	Ser	Gln
		675					680					685			
Asn	Cys	Thr	Thr	Asn	Leu	Asn	Ser	Met	Asn	Val	Leu	Ile	Glu	Asn	Gln
	690					695					700				
Gln	Ser	Gly	Ser	Ser	Lys	Leu	Ile	Lys	Glu	Gln	Asp	Leu	Glu	Ile	Lys
705					710					715					720
Lys	Leu	Lys	Asn	Asp	Leu	Ile	Asn	Glu	Arg	Arg	Ile	Ser	Asn	Gln	Phe
				725					730					735	
Asn	Gln	Gln	Leu	Ala	Glu	Met	Lys	Arg	Tyr	Phe	Gln	Asp	His	Val	Ser
			740					745					750		
Arg	Thr	Arg	Ser	Glu	Phe	His	Asp	Glu	Leu	Asn	Lys	Cys	Ile	Asp	Asn
		755					760					765			
Leu	Lys	Asp	Lys	Gln	Ser	Lys	Leu	Asp	Gln	Asp	Ile	Trp	Gln	Lys	Thr
	770					775					780				
Ala	Ser	Ile	Phe	Asn	Glu	Thr	Asp	Ile	Val	Val	Asn	Lys	Ile	His	Ser
785					790					795					800
Asp	Ser	Ile	Ala	Ser	Leu	Ala	His	Asn	Ala	Glu	Asn	Thr	Leu	Lys	Thr
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Val	Ser	Gln	Asn	Asn	Glu	Ser	Phe	Thr	Asn	Asp	Leu	Ile	Ser	Leu	Ser
			820					825					830		
Arg	Gly	Met	Asn	Met	Asp	Ile	Ser	Ser	Lys	Leu	Arg	Ser	Leu	Pro	Ile
		835					840					845			
Asn	Glu	Phe	Leu	Asn	Lys	Ile	Ser	Gln	Thr	Ile	Cys	Glu	Thr	Cys	Gly
	850					855					860				
Asp	Asp	Asn	Thr	Ile	Ala	Ser	Asn	Pro	Val	Leu	Thr	Ser	Ile	Lys	Lys
865					870					875					880
Phe	Gln	Asn	Ile	Ile	Cys	Ser	Asp	Ile	Ala	Leu	Thr	Asn	Glu	Lys	Ile
				885					890					895	
Met	Ser	Leu	Ile	Asp	Glu	Ile	Gln	Ser	Gln	Ile	Glu	Thr	Ile	Ser	Asn
			900					905					910		
Glu	Asn	Asn	Ile	Asn	Leu	Ile	Ala	Ile	Asn	Glu	Asn	Phe	Asn	Ser	Leu
		915					920					925			
Cys	Asn	Phe	Ile	Leu	Thr	Asp	Tyr	Asp	Glu	Asn	Ile	Met	Gln	Ile	Ser
	930					935					940				
Lys	Thr	Gln	Asp	Glu	Val	Leu	Ser	Glu	His	Cys	Glu	Lys	Leu	Gln	Ser
945					950					955					960
Leu	Lys	Ile	Leu	Gly	Met	Asp	Ile	Phe	Thr	Ala	His	Ser	Ile	Glu	Lys
				965					970					975	
Pro	Leu	His	Glu	His	Thr	Arg	Pro	Glu	Ala	Ser	Val	Ile	Lys	Ala	Leu

Val	Ile	Gly	Leu	Thr	Glu	Arg	Arg	Cys	Glu	Ser	Ser	Glu	Glu	Leu	Leu
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Arg	Trp	Ile	Ala	Val	Gly	Asp	Lys	Ser	Arg	Lys	Ile	Gly	Glu	Thr	Asp
				325					330						335
Tyr	Asn	Ala	Arg	Ser	Ser	Arg	Ser	His	Ala	Ile	Val	Leu	Ile	Arg	Leu
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Thr	Ser	Thr	Asn	Val	Lys	Asn	Gly	Thr	Ser	Arg	Ser	Ser	Thr	Leu	Ser
		355					360						365		
Leu	Cys	Asp	Leu	Ala	Gly	Ser	Glu	Arg	Ala	Thr	Gly	Gln	Gln	Glu	Arg
	370					375					380				
Arg	Lys	Glu	Gly	Ser	Phe	Ile	Asn	Lys	Ser	Leu	Leu	Ala	Leu	Gly	Thr
385					390					395					400
Val	Ile	Ser	Lys	Leu	Ser	Ala	Asp	Lys	Met	Asn	Ser	Val	Gly	Ser	Asn
				405					410						415
Ile	Pro	Ser	Pro	Ser	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ser	Gly	Asn	Ala
			420					425						430	
Thr	Asn	Asn	Gly	Thr	Ser	Pro	Ser	Asn	His	Ile	Pro	Tyr	Arg	Asp	Ser
		435						440					445		
Lys	Leu	Thr	Arg	Leu	Leu	Gln	Pro	Ala	Leu	Ser	Gly	Asp	Ser	Ile	Val
	450					455					460				
Thr	Thr	Ile	Cys	Thr	Val	Asp	Thr	Arg	Asn	Asp	Ala	Ala	Ala	Glu	Thr
465					470					475					480
Met	Asn	Thr	Leu	Arg	Phe	Ala	Ser	Arg	Ala	Lys	Asn	Val	Ala	Leu	His
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Val	Ser	Lys	Lys	Ser	Ile	Ile	Ser	Asn	Gly	Asn	Asn	Asp	Gly	Asp	Lys
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Asp	Arg	Thr	Ile	Glu	Leu	Leu	Arg	Arg	Gln	Leu	Glu	Glu	Gln	Arg	Arg
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Met	Ile	Ser	Glu	Leu	Lys	Asn	Arg	Ser	Asn	Ile	Gly	Glu	Pro	Leu	Thr
	530					535					540				
Lys	Ser	Ser	Asn	Glu	Ser	Thr	Tyr	Lys	Asp	Ile	Lys	Ala	Thr	Gly	Asn
545					550					555					560
Asp	Gly	Asp	Pro	Asn	Leu	Ala	Leu	Met	Arg	Ala	Glu	Asn	Arg	Val	Leu
				565					570						575
Lys	Tyr	Lys	Leu	Glu	Asn	Cys	Glu	Lys	Leu	Leu	Asp	Lys	Asp	Val	Val
			580					585					590		
Asp	Leu	Gln	Asp	Ser	Glu	Ile	Met	Glu	Ile	Val	Glu	Met	Leu	Pro	Phe
		595					600					605			
Glu	Val	Gly	Thr	Leu	Leu	Glu	Thr	Lys	Phe	Gln	Gly	Leu	Glu	Ser	Gln
	610					615					620				
Ile	Arg	Gln	Tyr	Arg	Lys	Tyr	Thr	Gln	Lys	Leu	Glu	Asp	Lys	Ile	Met
625					630					635					640
Ala	Leu	Glu	Lys	Ser	Gly	His	Thr	Ala	Met	Ser	Leu	Thr	Gly	Cys	Asp
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Gly	Thr	Glu	Val	Ile	Glu	Leu	Gln	Lys	Met	Leu	Glu	Arg	Lys	Asp	Lys
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Met	Ile	Glu	Ala	Leu	Gln	Ser	Ala	Lys	Arg	Leu	Arg	Asp	Arg	Ala	Leu
		675					680					685			
Lys	Pro	Leu	Ile	Asn	Thr	Gln	Gln	Ser	Pro	His	Pro	Val	Val	Asp	Asn
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Asp	Lys														
705															

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 <211> 540
 <212> PRT
 <213> Caenorhabditis elegans

<400> 30
 Met Ser Asn Met Ser Gln Asp Asp Val Thr Thr Gly Leu Arg Thr Val
 1 5 10 15
 Gln Gln Gly Leu Glu Ala Leu Arg Glu Glu His Ser Thr Ile Ser Asn

			20					25					30			
Thr	Leu	Glu	Thr	Ser	Val	Lys	Gly	Val	Lys	Glu	Asp	Glu	Ala	Pro	Leu	
		35					40					45				
Pro	Lys	Gln	Lys	Leu	Ser	Gln	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Leu	Val	
	50					55					60					
Cys	Gly	Val	Asp	Glu	Thr	Ser	Leu	Met	Leu	Met	Val	Phe	Gln	Leu	Thr	
65					70					75					80	
Gln	Gly	Met	Asp	Ala	Gln	His	Gln	Lys	Tyr	Gln	Ala	Gln	Arg	Arg	Arg	
				85					90					95		
Leu	Cys	Gln	Glu	Asn	Ala	Trp	Leu	Arg	Asp	Glu	Leu	Ser	Ser	Thr	Gln	
			100					105						110		
Ile	Lys	Leu	Gln	Gln	Ser	Glu	Gln	Met	Val	Ala	Gln	Leu	Glu	Glu	Glu	
	115						120					125				
Asn	Lys	His	Leu	Lys	Tyr	Met	Ala	Ser	Ile	Lys	Gln	Leu	Asp	Asp	Gly	
	130					135					140					
Thr	Gln	Ser	Asp	Thr	Lys	Thr	Ser	Val	Asp	Val	Gly	Pro	Gln	Pro	Val	
145					150					155					160	
Thr	Asn	Glu	Thr	Leu	Gln	Glu	Leu	Gly	Phe	Gly	Pro	Glu	Asp	Glu	Glu	
			165						170					175		
Asp	Met	Asn	Ala	Ser	Gln	Phe	Asn	Gln	Pro	Thr	Pro	Ala	Asn	Gln	Met	
			180					185					190			
Ala	Ala	Ser	Ala	Asn	Val	Gly	Tyr	Glu	Ile	Pro	Ala	Arg	Leu	Arg	Thr	
	195						200					205				
Leu	His	Asn	Leu	Val	Ile	Gln	Tyr	Ala	Ser	Gln	Gly	Arg	Tyr	Glu	Val	
	210					215					220					
Ala	Val	Pro	Leu	Cys	Lys	Gln	Ala	Leu	Glu	Asp	Leu	Glu	Lys	Thr	Ser	
225					230					235					240	
Gly	His	Asp	His	Pro	Asp	Val	Ala	Thr	Met	Leu	Asn	Ile	Leu	Ala	Leu	
			245						250					255		
Val	Tyr	Arg	Asp	Gln	Asn	Lys	Tyr	Lys	Glu	Ala	Ala	Asn	Leu	Leu	Asn	
			260					265					270			
Glu	Ala	Leu	Ser	Ile	Arg	Glu	Lys	Cys	Leu	Gly	Glu	Ser	His	Pro	Ala	
	275						280					285				
Val	Ala	Ala	Thr	Leu	Asn	Asn	Leu	Ala	Val	Leu	Phe	Gly	Lys	Arg	Gly	
	290					295					300					
Lys	Phe	Lys	Asp	Ala	Glu	Pro	Leu	Cys	Lys	Arg	Ala	Leu	Glu	Ile	Arg	
305					310					315					320	
Glu	Lys	Val	Leu	Gly	Asp	Asp	His	Pro	Asp	Val	Ala	Lys	Gln	Leu	Asn	
				325					330					335		
Asn	Leu	Ala	Leu	Cys	Gln	Asn	Gln	Gly	Lys	Tyr	Glu	Glu	Val	Glu		
			340				345					350				
Lys	Tyr	Tyr	Lys	Arg	Ala	Leu	Glu	Ile	Tyr	Glu	Ser	Lys	Leu	Gly	Pro	
		355					360					365				
Asp	Asp	Pro	Asn	Val	Ala	Lys	Thr	Lys	Asn	Asn	Leu	Ser	Ser	Ala	Tyr	
	370					375					380					
Leu	Lys	Gln	Gly	Lys	Tyr	Lys	Glu	Ala	Glu	Glu	Leu	Tyr	Lys	Gln	Ile	
385					390					395					400	
Leu	Thr	Arg	Ala	His	Glu	Arg	Glu	Phe	Gly	Gln	Ile	Ser	Gly	Glu	Asn	
				405					410					415		
Lys	Pro	Ile	Trp	Gln	Ile	Ala	Glu	Glu	Arg	Glu	Glu	Asn	Lys	His	Lys	
			420					425					430			
Gly	Glu	Gly	Ala	Thr	Ala	Asn	Glu	Gln	Ala	Gly	Trp	Ala	Lys	Ala	Ala	
		435					440					445				
Lys	Val	Asp	Ser	Pro	Thr	Val	Thr	Thr	Thr	Leu	Lys	Asn	Leu	Gly	Ala	
	450					455					460					
Leu	Tyr	Arg	Arg	Gln	Gly	Lys	Tyr	Glu	Ala	Ala	Glu	Thr	Leu	Glu	Asp	
465					470					475					480	
Val	Ala	Leu	Arg	Ala	Lys	Lys	Gln	His	Glu	Pro	Leu	Arg	Ser	Gly	Ala	
				485					490					495		
Met	Gly	Gly	Ile	Asp	Glu	Met	Ser	Gln	Ser	Met	Met	Ala	Ser	Thr	Ile	
			500					505					510			
Gly	Gly	Ser	Arg	Asn	Ser	Met	Thr	Thr	Ser	Thr	Ser	Gln	Thr	Gly	Leu	
		515					520					525				

Lys Asn Lys Leu Met Asn Ala Leu Gly Phe Asn Ser
 530 535 540

<210> 31
 <211> 508
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 31
 Met Thr Gln Met Ser Gln Asp Glu Ile Ile Thr Asn Thr Lys Thr Val
 1 5 10 15
 Leu Gln Gly Leu Glu Ala Leu Arg Val Glu His Val Ser Ile Met Asn
 20 25 30
 Gly Ile Ala Glu Val Gln Lys Asp Asn Glu Lys Ser Asp Met Leu Arg
 35 40 45
 Lys Asn Ile Glu Asn Ile Glu Leu Gly Leu Ser Glu Ala Gln Val Met
 50 55 60
 Met Ala Leu Thr Ser His Leu Gln Asn Ile Glu Ala Glu Lys His Lys
 65 70 75 80
 Leu Lys Thr Gln Val Arg Arg Leu His Gln Glu Asn Ala Trp Leu Arg
 85 90 95
 Asp Glu Leu Ala Asn Thr Gln Gln Lys Phe Gln Ala Ser Glu Gln Leu
 100 105 110
 Val Ala Gln Leu Glu Glu Glu Lys Lys His Leu Glu Phe Met Ala Ser
 115 120 125
 Val Lys Lys Tyr Asp Glu Asn Gln Glu Gln Asp Asp Ala Cys Asp Lys
 130 135 140
 Ser Arg Thr Asp Pro Val Val Glu Leu Phe Pro Asp Glu Glu Asn Glu
 145 150 155 160
 Asp Arg His Asn Met Ser Pro Thr Pro Pro Ser Gln Phe Ala Asn Gln
 165 170 175
 Thr Ser Gly Tyr Glu Ile Pro Ala Arg Leu Arg Thr Leu His Asn Leu
 180 185 190
 Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val Ala Val Pro Leu
 195 200 205
 Cys Lys Gln Ala Leu Glu Asp Leu Glu Arg Thr Ser Gly His Asp His
 210 215 220
 Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr Arg Asp
 225 230 235 240
 Gln Asn Lys Tyr Lys Glu Ala Ala Asn Leu Leu Asn Asp Ala Leu Ser
 245 250 255
 Ile Arg Gly Lys Thr Leu Gly Glu Asn His Pro Ala Val Ala Ala Thr
 260 265 270
 Leu Asn Asn Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr Lys Asp
 275 280 285
 Ala Glu Pro Leu Cys Lys Arg Ala Leu Glu Ile Arg Glu Lys Val Leu
 290 295 300
 Gly Lys Asp His Pro Asp Val Ala Lys Gln Leu Asn Asn Leu Ala Leu
 305 310 315 320
 Leu Cys Gln Asn Gln Gly Lys Tyr Asp Glu Val Glu Lys Tyr Tyr Gln
 325 330 335
 Arg Ala Leu Asp Ile Tyr Glu Ser Lys Leu Gly Pro Asp Asp Pro Asn
 340 345 350
 Val Ala Lys Thr Lys Asn Asn Leu Ala Gly Cys Tyr Leu Lys Gln Gly
 355 360 365
 Arg Tyr Thr Glu Ala Glu Ile Leu Tyr Lys Gln Val Leu Thr Arg Ala
 370 375 380
 His Glu Arg Glu Phe Gly Ala Ile Asp Ser Lys Asn Lys Pro Ile Trp
 385 390 395 400
 Gln Val Ala Glu Glu Arg Glu Glu His Lys Phe Asp Asn Arg Glu Asn
 405 410 415
 Thr Pro Tyr Gly Glu Tyr Gly Gly Trp His Lys Ala Ala Lys Val Asp

Ser	Pro	Thr	420	Thr	Thr	Thr	Leu	425	Lys	Asn	Leu	Gly	Ala	430	Leu	Tyr	Arg
			435				440						445				
Arg	Gln	Gly	Met	Phe	Glu	Ala	Ala	Glu	Thr	Leu	Glu	Asp	Cys	Ala	Met		
	450					455					460						
Arg	Ser	Lys	Lys	Glu	Ala	Tyr	Asp	Leu	Ala	Lys	Gln	Thr	Lys	Leu	Ser		
465				470					475						480		
Gln	Leu	Leu	Thr	Ser	Asn	Glu	Lys	Arg	Arg	Ser	Lys	Ala	Ile	Lys	Glu		
				485				490						495			
Asp	Leu	Asp	Phe	Ser	Glu	Glu	Lys	Asn	Ala	Lys	Pro						
			500					505									

<210> 32
 <211> 571
 <212> PRT
 <213> Loligo pealeii

<400> 32

Met	Glu	Val	Thr	Gln	Thr	Val	Lys	Ser	Tyr	Arg	Ile	Lys	Lys	Ile	Glu		
1				5					10					15			
Glu	Ile	Gly	Lys	Met	Thr	Ala	Leu	Ser	Gln	Glu	Glu	Ile	Ile	Ser	Asn		
			20					25					30				
Thr	Lys	Thr	Val	Ile	Gln	Gly	Leu	Asp	Thr	Leu	Lys	Asn	Glu	His	Asn		
		35				40						45					
Gln	Ile	Leu	Asn	Ser	Leu	Leu	Thr	Ser	Met	Lys	Thr	Ile	Arg	Lys	Glu		
50					55					60							
Asn	Gly	Asp	Thr	Asn	Leu	Val	Glu	Glu	Lys	Ala	Asn	Ile	Leu	Lys	Lys		
65				70					75						80		
Ser	Val	Asp	Ser	Ile	Glu	Leu	Gly	Leu	Gly	Glu	Ala	Gln	Val	Met	Met		
			85					90					95				
Ala	Leu	Ala	Asn	His	Leu	Gln	His	Thr	Glu	Ala	Glu	Lys	Gln	Lys	Leu		
			100					105					110				
Arg	Ala	Gln	Val	Arg	Arg	Leu	Cys	Gln	Glu	Asn	Ala	Trp	Leu	Arg	Asp		
		115					120					125					
Glu	Leu	Ala	Asn	Thr	Gln	Gln	Lys	Leu	Gln	Met	Ser	Glu	Gln	Lys	Val		
	130					135				140							
Ala	Thr	Ile	Glu	Glu	Glu	Lys	Lys	His	Leu	Glu	Phe	Met	Asn	Glu	Met		
145				150					155						160		
Lys	Lys	Tyr	Asp	Thr	Asn	Glu	Ala	Gln	Val	Asn	Glu	Glu	Lys	Glu	Ser		
			165					170						175			
Glu	Gln	Ser	Ser	Leu	Asp	Leu	Gly	Phe	Pro	Asp	Asp	Asp	Asp	Asp	Gly		
		180					185					190					
Gly	Gln	Pro	Glu	Val	Leu	Ser	Pro	Thr	Gln	Pro	Ser	Ala	Met	Ala	Gln		
	195					200						205					
Ala	Ala	Ser	Gly	Gly	Cys	Glu	Ile	Pro	Ala	Arg	Leu	Arg	Thr	Leu	His		
	210				215						220						
Asn	Leu	Val	Ile	Gln	Tyr	Ala	Ser	Gln	Gly	Arg	Tyr	Glu	Val	Ala	Val		
225				230					235						240		
Pro	Leu	Cys	Lys	Gln	Ala	Leu	Glu	Asp	Leu	Glu	Lys	Thr	Ser	Gly	His		
			245					250						255			
Asp	His	Pro	Asp	Val	Ala	Thr	Met	Leu	Asn	Ile	Leu	Ala	Leu	Val	Tyr		
		260					265						270				
Arg	Asp	Gln	Gly	Lys	Tyr	Lys	Glu	Ala	Ala	Asn	Leu	Leu	Asn	Asp	Ala		
		275					280					285					
Leu	Gly	Ile	Arg	Glu	Lys	Thr	Leu	Gly	Pro	Asp	His	Pro	Ala	Val	Ala		
	290					295					300						
Ala	Thr	Leu	Asn	Asn	Leu	Ala	Val	Leu	Tyr	Gly	Lys	Arg	Gly	Lys	Tyr		
305				310					315						320		
Lys	Asp	Ala	Glu	Pro	Leu	Cys	Lys	Arg	Ala	Leu	Val	Ile	Arg	Glu	Lys		
			325					330						335			
Val	Leu	Gly	Lys	Asp	His	Pro	Asp	Val	Ala	Lys	Gln	Leu	Asn	Asn	Leu		
			340				345						350				

Ala	Leu	Leu	Cys	Gln	Asn	Gln	Gly	Lys	Tyr	Glu	Glu	Val	Glu	Arg	Tyr	
		355					360					365				
Tyr	Gln	Arg	Ala	Leu	Glu	Ile	Tyr	Gln	Lys	Glu	Leu	Gly	Pro	Asp	Asp	
	370					375					380					
Pro	Asn	Val	Ala	Lys	Thr	Lys	Asn	Asn	Leu	Ala	Ser	Ala	Tyr	Leu	Lys	
385					390					395					400	
Gln	Gly	Lys	Tyr	Lys	Gln	Ala	Glu	Ile	Leu	Tyr	Lys	Glu	Val	Leu	Thr	
				405					410					415		
Arg	Ala	His	Glu	Lys	Glu	Phe	Gly	Lys	Val	Asp	Asp	Asp	Asn	Lys	Pro	
			420				425						430			
Ile	Trp	Met	Gln	Ala	Glu	Glu	Arg	Glu	Glu	Asn	Lys	Ala	Lys	Tyr	Lys	
	435						440					445				
Asp	Gly	Ala	Pro	Gln	Pro	Asp	Tyr	Gly	Ser	Trp	Leu	Lys	Ala	Val	Lys	
450						455					460					
Val	Asp	Ser	Pro	Thr	Val	Thr	Thr	Thr	Leu	Lys	Asn	Leu	Gly	Ala	Leu	
465					470					475					480	
Tyr	Arg	Arg	Gln	Gly	Lys	Tyr	Glu	Ala	Ala	Glu	Thr	Leu	Glu	Glu	Cys	
			485					490						495		
Ala	Leu	Arg	Ser	Arg	Lys	Ser	Ala	Leu	Glu	Val	Val	Arg	Gln	Thr	Lys	
			500				505						510			
Ile	Ser	Asp	Val	Leu	Gly	Ser	Asp	Phe	Ser	Lys	Gly	Gln	Ser	Pro	Lys	
		515					520					525				
Asp	Arg	Lys	Arg	Ser	Asn	Ser	Arg	Asp	Arg	Asn	Arg	Arg	Asp	Ser	Met	
530					535					540						
Asp	Ser	Val	Ser	Tyr	Glu	Lys	Ser	Gly	Asp	Gly	Asp	Glu	His	Glu	Lys	
545					550					555					560	
Ser	Lys	Leu	His	Val	Gly	Thr	Ser	His	Lys	Gln						
			565						570							

<210> 33
 <211> 686
 <212> PRT
 <213> Strongylocentrotus purpuratus

<400> 33

Met	Ser	Gly	Ser	Lys	Leu	Ser	Thr	Pro	Asn	Asn	Ser	Gly	Gly	Gly	Gln	
1				5					10					15		
Gly	Asn	Leu	Ser	Gln	Glu	Gln	Ile	Ile	Thr	Gly	Thr	Arg	Glu	Val	Ile	
		20					25					30				
Lys	Gly	Leu	Glu	Gln	Leu	Lys	Asn	Glu	His	Asn	Asp	Ile	Leu	Asn	Ser	
	35					40					45					
Leu	Tyr	Gln	Ser	Leu	Lys	Met	Leu	Lys	Lys	Asp	Thr	Pro	Gly	Asp	Ser	
50					55					60						
Asn	Leu	Val	Glu	Glu	Lys	Thr	Asp	Ile	Ile	Glu	Lys	Ser	Leu	Glu	Ser	
65					70					75				80		
Leu	Glu	Leu	Gly	Leu	Gly	Glu	Ala	Lys	Val	Met	Met	Ala	Leu	Gly	His	
			85					90					95			
His	Leu	Asn	Met	Val	Glu	Ala	Glu	Lys	Gln	Lys	Leu	Arg	Ala	Gln	Val	
		100					105					110				
Arg	Arg	Leu	Val	Gln	Glu	Asn	Thr	Trp	Leu	Arg	Asp	Glu	Leu	Ala	Ala	
	115						120					125				
Thr	Gln	Gln	Lys	Leu	Gln	Thr	Ser	Glu	Gln	Asn	Leu	Ala	Asp	Leu	Glu	
	130					135					140					
Val	Lys	Tyr	Lys	His	Leu	Glu	Tyr	Met	Asn	Ser	Ile	Lys	Lys	Tyr	Asp	
145					150				155						160	
Glu	Asp	Arg	Thr	Pro	Asp	Glu	Glu	Ala	Ser	Ser	Ser	Asp	Pro	Leu	Asp	
			165					170						175		
Leu	Gly	Phe	Pro	Glu	Asp	Asp	Asp	Gly	Gly	Gln	Ala	Asp	Glu	Ser	Tyr	
		180					185					190				
Pro	Gln	Pro	Gln	Thr	Gly	Ser	Gly	Ser	Val	Ser	Ala	Ala	Ala	Gly	Gly	
	195						200					205				
Tyr	Glu	Ile	Pro	Ala	Arg	Leu	Arg	Thr	Leu	His	Asn	Leu	Val	Ile	Gln	

210		215		220											
Tyr	Ala	Ser	Gln	Ser	Arg	Tyr	Glu	Val	Ala	Val	Pro	Leu	Cys	Lys	Gln
225					230					235					240
Ala	Leu	Glu	Asp	Leu	Glu	Lys	Thr	Ser	Gly	His	Asp	His	Pro	Asp	Val
				245					250						255
Ala	Thr	Met	Leu	Asn	Ile	Leu	Ala	Leu	Val	Tyr	Arg	Asp	Gln	Asn	Lys
			260					265					270		
Tyr	Lys	Glu	Ala	Gly	Asn	Leu	Leu	His	Asp	Ala	Leu	Ala	Ile	Arg	Glu
		275					280					285			
Lys	Thr	Leu	Gly	Pro	Asp	His	Pro	Ala	Val	Ala	Ala	Thr	Leu	Asn	Asn
	290					295				300					
Leu	Ala	Val	Leu	Tyr	Gly	Lys	Arg	Gly	Lys	Tyr	Lys	Glu	Ala	Glu	Pro
305					310					315					320
Leu	Cys	Lys	Arg	Ala	Leu	Glu	Ile	Arg	Glu	Lys	Val	Leu	Gly	Lys	Asp
				325					330					335	
His	Pro	Asp	Val	Ala	Lys	Gln	Leu	Asn	Asn	Leu	Ala	Leu	Leu	Cys	Gln
			340					345				350			
Asn	Gln	Gly	Lys	Tyr	Glu	Glu	Val	Glu	Trp	Tyr	Tyr	Gln	Arg	Ala	Leu
		355					360					365			
Glu	Ile	Tyr	Glu	Lys	Lys	Leu	Gly	Pro	Asp	Asp	Pro	Asn	Val	Ala	Lys
	370					375					380				
Thr	Lys	Asn	Asn	Leu	Ala	Ala	Tyr	Leu	Lys	Gln	Gly	Lys	Tyr	Lys	
385					390				395						400
Ala	Ala	Glu	Thr	Leu	Tyr	Lys	Gln	Val	Leu	Thr	Arg	Ala	His	Glu	Arg
			405					410						415	
Glu	Phe	Gly	Leu	Ser	Ala	Asp	Asp	Lys	Asp	Asn	Lys	Pro	Ile	Trp	Met
		420					425						430		
Gln	Ala	Glu	Glu	Arg	Glu	Glu	Lys	Gly	Lys	Phe	Lys	Asp	Asn	Ala	Pro
	435						440					445			
Tyr	Gly	Asp	Tyr	Gly	Gly	Trp	His	Lys	Ala	Ala	Lys	Val	Asp	Ser	Arg
	450					455					460				
Ser	Arg	Ser	Ser	Pro	Thr	Val	Thr	Thr	Thr	Leu	Lys	Asn	Leu	Gly	Ala
465					470					475					480
Leu	Tyr	Arg	Arg	Gln	Gly	Lys	Tyr	Asp	Ala	Ala	Glu	Ile	Leu	Glu	Glu
				485					490					495	
Cys	Ala	Met	Lys	Ser	Arg	Arg	Asn	Ala	Leu	Asp	Met	Val	Arg	Glu	Thr
		500					505					510			
Lys	Val	Arg	Glu	Leu	Leu	Gly	Gln	Asp	Leu	Ser	Thr	Asp	Val	Pro	Arg
	515						520					525			
Ser	Glu	Ala	Met	Ala	Lys	Glu	Arg	His	His	Arg	Arg	Ser	Ser	Gly	Thr
	530					535					540				
Pro	Arg	His	Gly	Ser	Thr	Glu	Ser	Val	Ser	Tyr	Glu	Lys	Thr	Asp	Gly
545					550				555						560
Ser	Glu	Glu	Val	Ser	Ile	Gly	Val	Ala	Trp	Lys	Ala	Lys	Arg	Lys	Ala
			565					570						575	
Lys	Asp	Arg	Ser	Arg	Ser	Ile	Pro	Ala	Gly	Tyr	Val	Glu	Ile	Pro	Arg
		580						585				590			
Ser	Pro	Pro	His	Val	Leu	Val	Glu	Asn	Gly	Asp	Gly	Lys	Leu	Arg	Arg
	595						600					605			
Ser	Gly	Ser	Leu	Ser	Lys	Leu	Arg	Ala	Ser	Val	Arg	Arg	Ser	Ser	Thr
	610					615					620				
Lys	Leu	Leu	Asn	Lys	Leu	Lys	Gly	Arg	Glu	Ser	Asp	Asp	Asp	Gly	Gly
625					630				635						640
Met	Lys	Arg	Ala	Ser	Ser	Met	Ser	Val	Leu	Pro	Ser	Arg	Gly	Asn	Asp
			645					650						655	
Glu	Ser	Thr	Pro	Ala	Pro	Ile	Gln	Leu	Ser	Gln	Arg	Gly	Arg	Val	Gly
		660					665					670			
Ser	His	Asp	Asn	Leu	Ser	Ser	Arg	Arg	Gln	Ser	Gly	Asn	Phe		
	675						680					685			

<210> 34
<211> 452

<212> PRT
 <213> Gallus gallus

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<400> 34
Met Arg Arg Ala Leu Gly Thr Leu Gly Cys Cys Leu Ala Leu Leu Leu
 1          5          10          15
Pro Leu Leu Pro Ala Ala Arg Gly Val Pro His Arg His Arg Arg Gln
 20          25          30
Pro Leu Gly Ser Gly Leu Gly Arg His Gly Ala Ala Asp Thr Ala Cys
 35          40          45
Lys Asn Arg Pro Leu Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser
 50          55          60
Val Arg Pro Glu Glu Phe Glu Lys Val Lys Ile Phe Leu Ser Lys Met
 65          70          75
Ile Asp Thr Leu Asp Val Gly Glu Arg Thr Thr Arg Val Ala Val Met
 85          90          95
Asn Tyr Ala Ser Thr Val Lys Val Glu Phe Pro Leu Arg Thr Tyr Phe
100          105          110
Asp Lys Ala Ser Met Lys Glu Ala Val Ser Arg Ile Gln Pro Leu Ser
115          120          125
Ala Gly Thr Met Thr Gly Leu Ala Ile Gln Ala Ala Met Asp Glu Val
130          135          140
Phe Thr Glu Glu Met Gly Thr Arg Pro Ala Asn Phe Asn Ile Pro Lys
145          150          155
Val Val Ile Ile Val Thr Asp Gly Arg Pro Gln Asp Gln Val Glu Asn
165          170          175
Val Ala Ala Asn Ala Arg Thr Ala Gly Ile Glu Ile Tyr Ala Val Gly
180          185          190
Val Gly Arg Ala Asp Met Gln Ser Leu Arg Ile Met Ala Ser Glu Pro
195          200          205
Leu Asp Glu His Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys
210          215          220
Leu Thr Ser Lys Phe Arg Glu Thr Phe Cys Ala Ala Asn Thr Cys Ala
225          230          235
Leu Gly Thr His Asp Cys Glu Gln Val Cys Val Ser Asn Asp Gly Ser
245          250          255
Tyr Leu Cys Asp Cys Tyr Glu Gly Tyr Thr Leu Asn Pro Asp Lys Arg
260          265          270
Thr Cys Ser Ala Val Asp Val Cys Ala Pro Gly Arg His Glu Cys Asp
275          280          285
Gln Ile Cys Val Ser Asn Asn Gly Ser Tyr Val Cys Glu Cys Phe Glu
290          295          300
Gly Tyr Thr Leu Asn Pro Asp Lys Lys Thr Cys Ser Ala Met Asp Val
305          310          315
Cys Ala Pro Gly Arg His Asp Cys Ala Gln Val Cys Arg Arg Asn Gly
325          330          335
Gly Ser Tyr Ser Cys Asp Cys Phe Glu Gly Phe Thr Leu Asn Pro Asp
340          345          350
Lys Lys Thr Cys Ser Ala Val Asp Val Cys Ala Pro Gly Arg His Asp
355          360          365
Cys Glu Gln Val Cys Val Arg Asp Asp Leu Phe Tyr Thr Cys Asp Cys
370          375          380
Tyr Gln Gly Tyr Val Leu Asn Pro Asp Lys Lys Thr Cys Ser Arg Ala
385          390          395
Thr Thr Ser Ser Leu Val Thr Asp Glu Glu Ala Cys Lys Cys Glu Ala
405          410          415
Ile Ala Ala Leu Gln Asp Ser Val Thr Ser Arg Leu Glu Ala Leu Ser
420          425          430
Thr Lys Leu Asp Glu Val Ser Gln Lys Leu Gln Ala Tyr Gln Asp Arg
435          440          445
Gln Gln Val Val
450

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<210> 35
 <211> 486
 <212> PRT
 <213> Homo sapiens

<400> 35
 Met Pro Arg Pro Ala Pro Ala Arg Arg Leu Pro Gly Leu Leu Leu Leu
 1 5 10 15
 Leu Trp Pro Leu Leu Leu Pro Ser Ala Ala Pro Asp Pro Val Ala
 20 25 30
 Arg Pro Gly Phe Arg Arg Leu Glu Thr Arg Gly Pro Gly Gly Ser Pro
 35 40 45
 Gly Arg Arg Pro Ser Pro Ala Ala Pro Asp Gly Ala Pro Ala Ser Gly
 50 55 60
 Thr Ser Glu Pro Gly Arg Ala Arg Gly Ala Gly Val Cys Lys Ser Arg
 65 70 75 80
 Pro Leu Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro
 85 90 95
 Leu Glu Phe Thr Lys Val Lys Thr Phe Val Ser Arg Ile Ile Asp Thr
 100 105 110
 Leu Asp Ile Gly Pro Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala
 115 120 125
 Ser Thr Val Lys Ile Glu Phe Gln Leu Gln Ala Tyr Thr Asp Lys Gln
 130 135 140
 Ser Leu Lys Gln Ala Val Gly Arg Ile Thr Pro Leu Ser Thr Gly Thr
 145 150 155 160
 Met Ser Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val
 165 170 175
 Glu Ala Gly Ala Arg Glu Pro Ser Ser Asn Ile Pro Lys Val Ala Ile
 180 185 190
 Ile Val Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala
 195 200 205
 Arg Ala Gln Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Arg
 210 215 220
 Ala Asp Met Ala Ser Leu Lys Met Met Ala Ser Glu Pro Leu Glu Glu
 225 230 235 240
 His Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ser
 245 250 255
 Arg Phe Gln Glu Thr Phe Cys Ala Leu Asp Pro Cys Val Leu Gly Thr
 260 265 270
 His Gln Cys Gln His Val Cys Ile Ser Asp Gly Glu Gly Lys His His
 275 280 285
 Cys Glu Cys Ser Gln Gly Tyr Thr Leu Asn Ala Asp Lys Lys Thr Cys
 290 295 300
 Ser Ala Leu Asp Arg Cys Ala Leu Asn Thr His Gly Cys Glu His Ile
 305 310 315 320
 Cys Val Asn Asp Arg Ser Gly Ser Tyr His Cys Glu Cys Tyr Glu Gly
 325 330 335
 Tyr Thr Leu Asn Glu Asp Arg Lys Thr Cys Ser Ala Gln Asp Lys Cys
 340 345 350
 Ala Leu Gly Thr His Gly Cys Gln His Ile Cys Val Asn Asp Arg Thr
 355 360 365
 Gly Ser His His Cys Glu Cys Tyr Glu Gly Tyr Thr Leu Asn Ala Asp
 370 375 380
 Lys Lys Thr Cys Ser Val Arg Asp Lys Cys Ala Leu Gly Ser His Gly
 385 390 395 400
 Cys Gln His Ile Cys Val Ser Asp Gly Ala Ala Ser Tyr His Cys Asp
 405 410 415
 Cys Tyr Pro Gly Tyr Thr Leu Asn Glu Asp Lys Lys Thr Cys Ser Ala
 420 425 430
 Thr Glu Glu Ala Arg Arg Leu Val Ser Thr Glu Asp Ala Cys Gly Cys
 435 440 445
 Glu Ala Thr Leu Ala Phe Gln Asp Lys Val Ser Ser Tyr Leu Gln Arg

450		455		460
Leu Asn Thr Lys Leu Asp	Asp Ile Leu Glu Lys	Leu Lys Ile Asn Glu		
465	470	475		480
Tyr Gly Gln Ile His Arg				
	485			

<210> 36
 <211> 481
 <212> PRT
 <213> Mus musculus

<400> 36

Met	Leu	Leu	Ser	Ala	Pro	Leu	Arg	His	Leu	Pro	Gly	Leu	Leu	Leu	Leu
1				5					10					15	
Leu	Trp	Pro	Leu	Leu	Leu	Leu	Pro	Ser	Leu	Ala	Ala	Pro	Gly	Arg	Leu
			20					25					30		
Ala	Arg	Ala	Ser	Val	Arg	Arg	Leu	Gly	Thr	Arg	Val	Pro	Gly	Gly	Ser
		35					40					45			
Pro	Gly	His	Leu	Ser	Ala	Leu	Ala	Thr	Ser	Thr	Arg	Ala	Pro	Tyr	Ser
	50					55					60				
Gly	Gly	Arg	Gly	Ala	Gly	Val	Cys	Lys	Ser	Arg	Pro	Leu	Asp	Leu	Val
65					70					75					80
Phe	Ile	Ile	Asp	Ser	Ser	Arg	Ser	Val	Arg	Pro	Leu	Glu	Phe	Thr	Lys
			85						90					95	
Val	Lys	Thr	Phe	Val	Ser	Arg	Ile	Ile	Asp	Thr	Leu	Asp	Ile	Gly	Ala
			100					105					110		
Thr	Asp	Thr	Arg	Val	Ala	Val	Val	Asn	Tyr	Ala	Ser	Thr	Val	Lys	Ile
		115					120					125			
Glu	Phe	Gln	Leu	Asn	Thr	Tyr	Ser	Asp	Lys	Gln	Ala	Leu	Lys	Gln	Ala
	130					135				140					
Val	Ala	Arg	Ile	Thr	Pro	Leu	Ser	Thr	Gly	Thr	Met	Ser	Gly	Leu	Ala
145					150					155					160
Ile	Gln	Thr	Ala	Met	Glu	Glu	Ala	Phe	Thr	Val	Glu	Ala	Gly	Ala	Arg
			165					170						175	
Gly	Pro	Met	Ser	Asn	Ile	Pro	Lys	Val	Ala	Ile	Ile	Val	Thr	Asp	Gly
		180					185						190		
Arg	Pro	Gln	Asp	Gln	Val	Asn	Glu	Val	Ala	Ala	Arg	Ala	Arg	Ala	Ser
	195					200						205			
Gly	Ile	Glu	Leu	Tyr	Ala	Val	Gly	Val	Asp	Arg	Ala	Asp	Met	Glu	Ser
	210					215					220				
Leu	Lys	Met	Met	Ala	Ser	Lys	Pro	Leu	Glu	Glu	His	Val	Phe	Tyr	Val
225					230					235					240
Glu	Thr	Tyr	Gly	Val	Ile	Glu	Lys	Leu	Ser	Ala	Arg	Phe	Gln	Glu	Thr
			245						250					255	
Phe	Cys	Ala	Leu	Asp	Gln	Cys	Met	Leu	Gly	Thr	His	Gln	Cys	Gln	His
		260					265					270			
Val	Cys	Val	Ser	Asp	Gly	Asp	Gly	Lys	His	His	Cys	Glu	Cys	Ser	Gln
		275					280					285			
Gly	Tyr	Thr	Leu	Asn	Ala	Asp	Gly	Lys	Thr	Cys	Ser	Ala	Ile	Asp	Lys
	290					295					300				
Cys	Ala	Leu	Ser	Thr	His	Gly	Cys	Glu	Gln	Ile	Cys	Ile	Asn	Asp	Arg
305					310					315					320
Asn	Gly	Ser	Tyr	His	Cys	Glu	Cys	Tyr	Gly	Gly	Tyr	Ala	Leu	Asn	Ala
			325						330					335	
Asp	Arg	Arg	Thr	Cys	Ala	Ala	Leu	Asp	Lys	Cys	Ala	Ser	Gly	Thr	His
			340					345					350		
Gly	Cys	Gln	His	Ile	Cys	Val	Asn	Asp	Gly	Ala	Gly	Ser	His	His	Cys
		355					360					365			
Glu	Cys	Phe	Glu	Gly	Tyr	Thr	Leu	Asn	Ala	Asp	Lys	Lys	Thr	Cys	Ser
	370					375					380				
Val	Arg	Asn	Lys	Cys	Ala	Leu	Gly	Thr	His	Gly	Cys	Gln	His	Ile	Cys
385					390					395					400

Val	Ser	Asp	Gly	Ala	Val	Ala	Tyr	His	Cys	Asp	Cys	Phe	Pro	Gly	Tyr
				405					410					415	
Thr	Leu	Asn	Asp	Asp	Lys	Lys	Thr	Cys	Ser	Asp	Ile	Glu	Glu	Ala	Arg
			420					425					430		
Ser	Leu	Ile	Ser	Ile	Glu	Asp	Ala	Cys	Gly	Cys	Gly	Ala	Thr	Leu	Ala
		435					440					445			
Phe	Gln	Glu	Lys	Val	Ser	Ser	His	Leu	Gln	Lys	Leu	Asn	Thr	Lys	Leu
	450					455					460				
Asp	Asn	Ile	Leu	Lys	Lys	Leu	Lys	Val	Thr	Glu	Tyr	Gly	Gln	Val	His
					470					475					480
Arg															

<210> 37
 <211> 1507
 <212> PRT
 <213> Drosophila melanogaster

<400> 37

Met	Val	Ser	Leu	Ile	Asp	Thr	Ile	Glu	Ala	Ala	Ala	Glu	Lys	Gln	Lys
1				5					10					15	
Gln	Ser	Gln	Ala	Val	Val	Thr	Asn	Thr	Ser	Ala	Ser	Ser	Ser	Ser	Cys
			20					25					30		
Ser	Ser	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Ser	Ser	Val	Gly	Ser	Pro
		35					40					45			
Ser	Pro	Gly	Ala	Pro	Lys	Thr	Asn	Leu	Thr	Ala	Ser	Gly	Lys	Pro	Lys
	50					55					60				
Glu	Lys	Arg	Arg	Asn	Asn	Glu	Lys	Arg	Lys	Glu	Lys	Ser	Arg	Asp	Ala
65				70						75					80
Ala	Arg	Cys	Arg	Arg	Ser	Lys	Glu	Thr	Glu	Ile	Phe	Met	Glu	Leu	Ser
				85					90					95	
Ala	Ala	Leu	Pro	Leu	Lys	Thr	Asp	Asp	Val	Asn	Gln	Leu	Asp	Lys	Ala
			100					105					110		
Ser	Val	Met	Arg	Ile	Thr	Ile	Ala	Phe	Leu	Lys	Ile	Arg	Glu	Met	Leu
		115					120					125			
Gln	Phe	Val	Pro	Ser	Leu	Arg	Asp	Cys	Asn	Asp	Asp	Ile	Lys	Gln	Asp
	130					135					140				
Ile	Glu	Thr	Ala	Glu	Asp	Gln	Gln	Glu	Val	Lys	Pro	Lys	Leu	Glu	Val
145					150					155					160
Gly	Thr	Glu	Asp	Trp	Leu	Asn	Gly	Ala	Glu	Ala	Arg	Glu	Leu	Leu	Lys
				165					170					175	
Gln	Thr	Met	Asp	Gly	Phe	Leu	Leu	Val	Leu	Ser	His	Glu	Gly	Asp	Ile
			180					185					190		
Thr	Tyr	Val	Ser	Glu	Asn	Val	Val	Glu	Tyr	Leu	Gly	Ile	Thr	Lys	Ile
		195					200					205			
Asp	Thr	Leu	Gly	Gln	Gln	Ile	Trp	Glu	Tyr	Ser	His	Gln	Cys	Asp	His
	210					215					220				
Ala	Glu	Ile	Lys	Glu	Ala	Leu	Ser	Leu	Lys	Arg	Glu	Leu	Ala	Gln	Lys
225					230					235					240
Val	Lys	Asp	Glu	Pro	Gln	Gln	Asn	Ser	Gly	Val	Ser	Thr	His	His	Arg
				245					250					255	
Asp	Leu	Phe	Val	Arg	Leu	Lys	Cys	Thr	Leu	Thr	Ser	Arg	Gly	Arg	Ser
		260						265					270		
Ile	Asn	Ile	Lys	Ser	Ala	Ser	Tyr	Lys	Val	Ile	His	Ile	Thr	Gly	His
		275					280					285			
Leu	Val	Val	Asn	Ala	Lys	Gly	Glu	Arg	Leu	Leu	Met	Ala	Ile	Gly	Arg
	290					295					300				
Pro	Ile	Pro	His	Pro	Ser	Asn	Ile	Glu	Ile	Pro	Leu	Gly	Thr	Ser	Thr
305					310					315					320
Phe	Leu	Thr	Lys	His	Ser	Leu	Asp	Met	Arg	Phe	Thr	Tyr	Val	Asp	Asp
				325					330					335	
Lys	Met	His	Asp	Leu	Leu	Gly	Tyr	Ser	Pro	Lys	Asp	Leu	Leu	Asp	Thr

			340					345				350			
Ser	Leu	Phe	Ser	Cys	Gln	His	Gly	Ala	Asp	Ser	Glu	Arg	Leu	Met	Ala
		355					360					365			
Thr	Phe	Lys	Ser	Val	Leu	Ser	Lys	Gly	Gln	Gly	Glu	Thr	Ser	Arg	Tyr
	370					375					380				
Arg	Phe	Leu	Gly	Lys	Tyr	Gly	Gly	Tyr	Cys	Trp	Ile	Leu	Ser	Gln	Ala
385					390					395					400
Thr	Ile	Val	Tyr	Asp	Lys	Leu	Lys	Pro	Gln	Ser	Val	Val	Cys	Val	Asn
				405					410					415	
Tyr	Val	Ile	Ser	Asn	Leu	Glu	Asn	Lys	His	Glu	Ile	Tyr	Ser	Leu	Ala
			420					425						430	
Gln	Gln	Thr	Ala	Ala	Ser	Glu	Gln	Lys	Glu	Gln	His	His	Gln	Ala	Ala
		435					440					445			
Glu	Thr	Glu	Lys	Glu	Pro	Glu	Lys	Ala	Ala	Asp	Pro	Glu	Ile	Ile	Ala
	450					455					460				
Gln	Glu	Thr	Lys	Glu	Thr	Val	Asn	Thr	Pro	Ile	His	Thr	Ser	Glu	Leu
465					470					475					480
Gln	Ala	Lys	Pro	Leu	Gln	Leu	Glu	Ser	Glu	Lys	Ala	Glu	Lys	Thr	Ile
				485					490					495	
Glu	Glu	Thr	Lys	Thr	Ile	Ala	Thr	Ile	Pro	Pro	Val	Thr	Ala	Thr	Ser
			500					505					510		
Thr	Ala	Asp	Gln	Ile	Lys	Gln	Leu	Pro	Glu	Ser	Asn	Pro	Tyr	Lys	Gln
		515					520					525			
Ile	Leu	Gln	Ala	Glu	Leu	Leu	Ile	Lys	Arg	Glu	Asn	His	Ser	Pro	Gly
	530					535					540				
Pro	Arg	Thr	Ile	Thr	Ala	Gln	Leu	Leu	Ser	Gly	Ser	Ser	Ser	Gly	Leu
545					550					555					560
Arg	Pro	Glu	Glu	Lys	Arg	Pro	Lys	Ser	Val	Thr	Ala	Ser	Val	Leu	Arg
				565					570					575	
Pro	Ser	Pro	Ala	Pro	Pro	Leu	Thr	Pro	Pro	Pro	Thr	Ala	Val	Leu	Cys
			580					585					590		
Lys	Lys	Thr	Pro	Leu	Gly	Val	Glu	Pro	Asn	Leu	Pro	Pro	Thr	Thr	Thr
		595					600					605			
Ala	Thr	Ala	Ala	Ile	Ile	Ser	Ser	Ser	Asn	Gln	Gln	Leu	Gln	Ile	Ala
	610					615					620				
Gln	Gln	Thr	Gln	Leu	Gln	Asn	Pro	Gln	Gln	Pro	Ala	Gln	Asp	Met	Ser
625					630					635					640
Lys	Gly	Phe	Cys	Ser	Leu	Phe	Ala	Asp	Asp	Gly	Arg	Gly	Leu	Thr	Met
				645					650					655	
Leu	Lys	Glu	Glu	Pro	Asp	Asp	Leu	Ser	His	His	Leu	Ala	Ser	Thr	Asn
			660					665					670		
Cys	Ile	Gln	Leu	Asp	Glu	Met	Thr	Pro	Phe	Ser	Asp	Met	Leu	Val	Gly
		675					680					685			
Leu	Met	Gly	Thr	Cys	Leu	Leu	Pro	Glu	Asp	Ile	Asn	Ser	Leu	Asp	Ser
	690					695					700				
Thr	Thr	Cys	Ser	Thr	Thr	Ala	Ser	Gly	Gln	His	Tyr	Gln	Ser	Pro	Ser
705					710					715					720
Ser	Ser	Ser	Thr	Ser	Ala	Pro	Ser	Asn	Thr	Ser	Ser	Ser	Asn	Asn	Ser
				725					730					735	
Tyr	Ala	Asn	Ser	Pro	Leu	Ser	Pro	Leu	Thr	Pro	Asn	Ser	Thr	Ala	Thr
			740					745					750		
Ala	Ser	Asn	Pro	Ser	His	Gln	Gln	Gln	Gln	His	His	Asn	Gln	Gln	
		755					760					765			
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	His	His	Pro	Gln	His	His	Asp	Asn
		770				775					780				
Ser	Asn	Ser	Ser	Ser	Asn	Ile	Asp	Pro	Leu	Phe	Asn	Tyr	Arg	Glu	Glu
785					790					795					800
Ser	Asn	Asp	Thr	Ser	Cys	Ser	Gln	His	Leu	His	Ser	Pro	Ser	Ile	Thr
				805					810					815	
Ser	Lys	Ser	Pro	Glu	Asp	Ser	Ser	Leu	Pro	Ser	Leu	Cys	Ser	Pro	Asn
			820					825					830		
Ser	Leu	Thr	Gln	Glu	Asp	Asp	Phe	Ser	Phe	Glu	Ala	Phe	Ala	Met	Arg
		835					840					845			

1345 1350 1355 1360
 Ser Ser Gly Gly Asp Gly Glu Thr Gly Ser Val Val Ser Leu Asp Asp
 1365 1370 1375
 Ser Val Pro Pro Gly Leu Thr Ala Cys Asp Thr Asp Ala Ser Ser Asp
 1380 1385 1390
 Ser Gly Ile Asp Glu Asn Ser Leu Met Asp Gly Ala Ser Gly Ser Pro
 1395 1400 1405
 Arg Lys Arg Leu Ser Ser Thr Ser Asn Ser Thr Asn Gln Ala Glu Ser
 1410 1415 1420
 Ala Pro Pro Ala Leu Asp Val Glu Thr Pro Val Thr Gln Lys Ser Val
 1425 1430 1435 1440
 Glu Glu Glu Phe Glu Gly Gly Gly Ser Gly Ser Asn Ala Pro Ser Arg
 1445 1450 1455
 Lys Thr Ser Ile Ser Phe Leu Asp Ser Ser Asn Pro Leu Leu His Thr
 1460 1465 1470
 Pro Ala Met Met Asp Leu Val Asn Asp Asp Tyr Ile Met Gly Glu Gly
 1475 1480 1485
 Gly Phe Glu Phe Ser Asp Asn Gln Leu Glu Gln Val Leu Gly Trp Pro
 1490 1495 1500
 Glu Ile Ala
 1505

<210> 38
 <211> 879
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Ala Gly Gly Gly Gly Asp Leu Ser Thr Arg Arg Leu Asn Glu Cys
 1 5 10 15
 Ile Ser Pro Val Ala Asn Glu Met Asn His Leu Pro Ala His Ser His
 20 25 30
 Asp Leu Gln Arg Met Phe Thr Glu Asp Gln Gly Val Asp Asp Arg Leu
 35 40 45
 Leu Tyr Asp Ile Val Phe Lys His Phe Lys Arg Asn Lys Val Glu Ile
 50 55 60
 Ser Asn Ala Ile Lys Lys Thr Phe Pro Phe Leu Glu Gly Leu Arg Asp
 65 70 75 80
 Arg Asp Leu Ile Thr Asn Lys Met Phe Glu Asp Ser Gln Asp Ser Cys
 85 90 95
 Arg Asn Leu Val Pro Val Gln Arg Val Val Tyr Asn Val Leu Ser Glu
 100 105 110
 Leu Glu Lys Thr Phe Asn Leu Pro Val Leu Glu Ala Leu Phe Ser Asp
 115 120 125
 Val Asn Met Gln Glu Tyr Pro Asp Leu Ile His Ile Tyr Lys Gly Phe
 130 135 140
 Glu Asn Val Ile His Asp Lys Leu Pro Leu Gln Glu Ser Glu Glu Glu
 145 150 155 160
 Glu Arg Glu Glu Arg Ser Gly Leu Gln Leu Ser Leu Glu Gln Gly Thr
 165 170 175
 Gly Glu Asn Ser Phe Arg Ser Leu Thr Trp Pro Pro Ser Gly Ser Pro
 180 185 190
 Ser His Ala Gly Thr Thr Pro Pro Glu Asn Gly Leu Ser Glu His Pro
 195 200 205
 Cys Glu Thr Glu Gln Ile Asn Ala Lys Arg Lys Asp Thr Thr Ser Asp
 210 215 220
 Lys Asp Asp Ser Leu Gly Ser Gln Gln Thr Asn Glu Gln Cys Ala Gln
 225 230 235 240
 Lys Ala Glu Pro Thr Glu Ser Cys Glu Gln Ile Ala Val Gln Val Asn
 245 250 255
 Asn Gly Asp Ala Gly Arg Glu Met Pro Cys Pro Leu Pro Cys Asp Glu
 260 265 270

Glu	Ser	Pro	Glu	Ala	Glu	Leu	His	Asn	His	Gly	Ile	Gln	Ile	Asn	Ser
		275					280					285			
Cys	Ser	Val	Arg	Leu	Val	Asp	Ile	Lys	Lys	Glu	Lys	Pro	Phe	Ser	Asn
	290					295					300				
Ser	Lys	Val	Glu	Cys	Gln	Ala	Gln	Ala	Arg	Thr	His	His	Asn	Gln	Ala
305				310						315					320
Ser	Asp	Ile	Ile	Val	Ile	Ser	Ser	Glu	Asp	Ser	Glu	Gly	Ser	Thr	Asp
				325					330					335	
Val	Asp	Glu	Pro	Leu	Glu	Val	Phe	Ile	Ser	Ala	Pro	Arg	Ser	Glu	Pro
			340					345					350		
Val	Ile	Asn	Asn	Asp	Asn	Pro	Leu	Glu	Ser	Asn	Asp	Glu	Lys	Glu	Gly
		355					360					365			
Gln	Glu	Ala	Thr	Cys	Ser	Arg	Pro	Gln	Ile	Val	Pro	Glu	Pro	Met	Asp
370						375					380				
Phe	Arg	Lys	Leu	Ser	Thr	Phe	Arg	Glu	Ser	Phe	Lys	Lys	Arg	Val	Ile
385					390					395					400
Gly	Gln	Asp	His	Asp	Phe	Ser	Glu	Ser	Ser	Glu	Glu	Glu	Ala	Pro	Ala
				405					410					415	
Glu	Ala	Ser	Ser	Gly	Ala	Leu	Arg	Ser	Lys	His	Gly	Glu	Lys	Ala	Pro
			420					425					430		
Met	Thr	Ser	Arg	Ser	Thr	Ser	Thr	Trp	Arg	Ile	Pro	Ser	Arg	Lys	Arg
		435					440					445			
Arg	Phe	Ser	Ser	Ser	Asp	Phe	Ser	Asp	Leu	Ser	Asn	Gly	Glu	Glu	Leu
	450				455						460				
Gln	Glu	Thr	Cys	Ser	Ser	Ser	Leu	Arg	Arg	Gly	Ser	Gly	Ser	Gln	Pro
465					470					475					480
Gln	Glu	Pro	Glu	Asn	Lys	Lys	Cys	Ser	Cys	Val	Met	Cys	Phe	Pro	Lys
				485					490					495	
Gly	Val	Pro	Arg	Ser	Gln	Glu	Ala	Arg	Thr	Glu	Ser	Ser	Gln	Ala	Ser
			500					505					510		
Asp	Met	Met	Asp	Thr	Met	Asp	Val	Glu	Asn	Asn	Ser	Thr	Leu	Glu	Lys
		515					520					525			
His	Ser	Gly	Lys	Arg	Arg	Lys	Lys	Arg	Arg	His	Arg	Ser	Lys	Val	Asn
	530					535					540				
Gly	Leu	Gln	Arg	Gly	Arg	Lys	Lys	Asp	Arg	Pro	Arg	Lys	His	Leu	Thr
545					550					555					560
Leu	Asn	Asn	Lys	Val	Gln	Lys	Lys	Arg	Trp	Gln	Gln	Arg	Gly	Arg	Lys
				565					570					575	
Ala	Asn	Thr	Arg	Pro	Leu	Lys	Arg	Arg	Lys	Arg	Gly	Pro	Arg	Ile	
			580					585				590			
Pro	Lys	Asp	Glu	Asn	Ile	Asn	Phe	Lys	Gln	Ser	Glu	Leu	Pro	Val	Thr
		595					600					605			
Cys	Gly	Glu	Val	Lys	Gly	Thr	Leu	Tyr	Lys	Glu	Arg	Phe	Lys	Gln	Gly
	610					615					620				
Thr	Ser	Lys	Lys	Cys	Ile	Gln	Ser	Glu	Asp	Lys	Lys	Trp	Phe	Thr	Pro
625					630					635					640
Arg	Glu	Phe	Glu	Ile	Glu	Gly	Asp	Arg	Gly	Ala	Ser	Lys	Asn	Trp	Lys
				645					650					655	
Leu	Ser	Ile	Arg	Cys	Gly	Gly	Tyr	Thr	Leu	Lys	Val	Leu	Met	Glu	Asn
			660					665					670		
Lys	Phe	Leu	Pro	Glu	Pro	Pro	Ser	Thr	Arg	Lys	Lys	Arg	Ile	Leu	Glu
		675					680					685			
Ser	His	Asn	Asn	Thr	Leu	Val	Asp	Pro	Cys	Glu	Glu	His	Lys	Lys	Lys
	690					695					700				
Asn	Pro	Asp	Ala	Ser	Val	Lys	Phe	Ser	Glu	Phe	Leu	Lys	Lys	Cys	Ser
705					710					715					720
Glu	Thr	Trp	Lys	Thr	Ile	Phe	Ala	Lys	Glu	Lys	Gly	Lys	Phe	Glu	Asp
				725					730					735	
Met	Ala	Lys	Ala	Asp	Lys	Ala	His	Tyr	Glu	Arg	Glu	Met	Lys	Thr	Tyr
			740					745					750		
Ile	Pro	Pro	Lys	Gly	Glu	Lys	Lys	Lys	Lys	Phe	Lys	Asp	Pro	Asn	Ala
		755					760					765			
Pro	Lys	Arg	Pro	Pro	Leu	Ala	Phe	Phe	Leu	Phe	Cys	Ser	Glu	Tyr	Arg

770		775		780
Pro Lys Ile Lys Gly Glu His Pro Gly Leu Ser Ile Asp Asp Val Val				
785		790		795
Lys Lys Leu Ala Gly Met Trp Asn Asn Thr Ala Ala Ala Asp Lys Gln				
	805		810	
Phe Tyr Glu Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Lys Lys Asp				
	820		825	
Ile Ala Ala Tyr Arg Ala Lys Gly Lys Pro Asn Ser Ala Lys Lys Arg				
	835		840	
Val Val Lys Ala Glu Lys Ser Lys Lys Lys Lys Glu Glu Glu Glu Asp				
	850		855	
Glu Glu Asp Glu Gln Glu Glu Glu Asn Glu Glu Asp Asp Asp Lys				
865		870		875

<210> 39
 <211> 284
 <212> PRT
 <213> Gallus gallus

<400> 39	
Met Glu Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu	
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Asn Ala Ile Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gln Ala	
	20
Glu Asp Arg Cys Lys Gln Leu Glu Glu Gln Gln Gly Leu Gln Lys	
	35
Lys Leu Lys Gly Thr Glu Asp Glu Val Glu Lys Tyr Ser Glu Ser Val	
	50
Lys Glu Ala Gln Glu Lys Leu Glu Gln Ala Glu Lys Lys Ala Thr Asp	
65	70
Ala Glu Ala Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu	
	85
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys	
	100
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys	
	115
Val Ile Glu Asn Arg Ala Met Lys Asp Glu Glu Lys Met Glu Leu Gln	
	130
Glu Met Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg	
145	150
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Val Leu Glu Gly Glu Leu	
	165
Glu Arg Ser Glu Glu Arg Ala Glu Val Ala Glu Ser Arg Val Arg Gln	
	180
Leu Glu Glu Glu Leu Arg Thr Met Asp Gln Ser Leu Lys Ser Leu Ile	
	195
Ala Ser Glu Glu Glu Tyr Ser Thr Lys Glu Asp Lys Tyr Glu Glu Glu	
	210
Ile Lys Leu Leu Gly Glu Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu	
225	230
Phe Ala Glu Arg Ser Val Ala Lys Leu Glu Lys Thr Ile Asp Asp Leu	
	245
Glu Glu Ser Leu Ala Ser Ala Lys Glu Glu Asn Val Gly Ile His Gln	
	260
Val Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Leu	
	275
	280

<210> 40
 <211> 284
 <212> PRT
 <213> Homo sapiens

<400> 40
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1 5 10 15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
20 25 30
Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
35 40 45
Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
50 55 60
Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
65 70 75 80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
85 90 95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100 105 110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115 120 125
Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
130 135 140
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg
145 150 155 160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu
165 170 175
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu
180 185 190
Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
195 200 205
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Arg Tyr Glu Glu Glu
210 215 220
Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
225 230 235 240
Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
245 250 255
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
260 265 270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
275 280

<210> 41
<211> 284
<212> PRT
<213> Gallus gallus

<400> 41
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1 5 10 15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
20 25 30
Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys
35 40 45
Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu
50 55 60
His Lys Ser Glu Asp Ser Leu Leu Ser Ala Glu Glu Asn Ala Ala Lys
65 70 75 80
Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
85 90 95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100 105 110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115 120 125
Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
130 135 140

Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
145					150					155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Leu	Glu	Gly	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Leu	Val	Thr	Asn	Glu	Ala	Lys	Ser	Leu	Glu
		195					200					205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln
			260					265					270		
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met				
		275					280								

<210> 42
 <211> 248
 <212> PRT
 <213> Gallus gallus

<400> 42

Met	Ala	Gly	Ile	Ser	Ser	Ile	Asp	Ala	Val	Lys	Lys	Lys	Ile	Gln	Ser
1				5					10					15	
Leu	Gln	Gln	Val	Ala	Asp	Glu	Ala	Glu	Glu	Arg	Ala	Glu	His	Leu	Gln
			20					25					30		
Arg	Glu	Ala	Asp	Ala	Glu	Arg	Gln	Ala	Arg	Glu	Arg	Ala	Glu	Ala	Glu
		35					40					45			
Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Glu	Leu	Asp
	50					55					60				
Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys	Leu	Glu	Glu	Ala
65					70					75					80
Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Asn
				85					90					95	
Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln	Glu	Met	Gln	Leu
			100					105					110		
Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg	Lys	Tyr	Glu	Glu
		115					120					125			
Val	Ala	Arg	Lys	Leu	Val	Val	Leu	Glu	Gly	Glu	Leu	Glu	Arg	Ser	Glu
	130					135					140				
Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Arg	Val	Arg	Gln	Leu	Glu	Glu	Glu
145					150					155					160
Leu	Arg	Thr	Met	Asp	Gln	Ser	Leu	Lys	Ser	Leu	Ile	Ala	Ser	Glu	Glu
				165					170					175	
Glu	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	Ile	Lys	Leu	Leu
			180					185					190		
Gly	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg
		195					200					205			
Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu	Glu	Glu	Ser	Leu
	210					215					220				
Ala	Ser	Ala	Lys	Glu	Glu	Asn	Val	Gly	Ile	His	Gln	Val	Leu	Asp	Gln
225					230					235					240
Thr	Leu	Leu	Glu	Leu	Asn	Asn	Leu								
				245											

<210> 43
 <211> 284
 <212> PRT

<213> Homo sapiens

<400> 43

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Met Glu Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1          5          10          15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Gln Lys Gln Ala
 20          25          30
Glu Glu Arg Ser Lys Gln Leu Glu Asp Glu Leu Ala Ala Met Gln Lys
 35          40          45
Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50          55          60
Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Ala Asp
 65          70          75          80
Ala Glu Ala Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85          90          95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100          105          110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115          120          125
Val Ile Glu Asn Arg Ala Leu Lys Asp Glu Glu Lys Met Glu Leu Gln
130          135          140
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
145          150          155          160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
165          170          175
Glu Arg Thr Glu Glu Arg Ala Glu Leu Ala Glu Ser Lys Cys Ser Glu
180          185          190
Leu Glu Glu Glu Leu Lys Asn Val Thr Asn Asn Leu Lys Ser Leu Glu
195          200          205
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
210          215          220
Ile Lys Ile Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
225          230          235          240
Phe Ala Glu Arg Ser Val Ala Lys Leu Glu Lys Thr Ile Asp Asp Leu
245          250          255
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
260          265          270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
275          280
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<210> 44

<211> 245

<212> PRT

<213> Gallus gallus

<400> 44

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Met Ala Ala Leu Ser Ser Leu Glu Ala Val Arg Lys Lys Ile Arg Ser
 1          5          10          15
Leu Gln Glu Gln Ala Asp Ala Ala Glu Glu Arg Ala Gly Lys Leu Gln
 20          25          30
Arg Glu Val Asp Gln Glu Arg Ala Leu Arg Glu Glu Ala Glu Ser Glu
 35          40          45
Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Glu Leu Asp
 50          55          60
Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala
 65          70          75          80
Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Asn
 85          90          95
Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu
100          105          110
Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg Lys Tyr Glu Glu
115          120          125
```


Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu	Glu	Arg	Ala	Glu
130						135					140				
Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu	Leu	Glu	Glu	Glu
145					150					155					160
Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	Ala	Gln	Ala	Glu
				165					170					175	
Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	Ile	Lys	Val	Leu
			180					185					190		
Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg
		195					200					205			
Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu	Glu	Asp	Gln	Leu
	210					215					220				
Tyr	Gln	Gln	Leu	Glu	Gln	Asn	Ser	Arg	Leu	Thr	Asn	Glu	Leu	Lys	Leu
225					230					235					240
Ala	Leu	Asn	Glu	Asp											
				245											

<210> 45
 <211> 281
 <212> PRT
 <213> Gallus gallus

<400> 45															
Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
			20					25					30		
Glu	Glu	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ala	Leu	Gln	Lys
		35					40					45			
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ser	Leu
	50					55					60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Asp	Lys	Lys	Ala	Thr	Asp
65					70					75					80
Ala	Glu	Ser	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85					90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
			100					105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
		115					120					125			
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
	130					135						140			
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
145					150					155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195					200					205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Asp	Gln	Leu	Tyr	Gln	Gln	Leu	Glu	Gln	Asn	Ser	Arg	Leu	Thr	Asn
			260					265					270		
Glu	Leu	Lys	Leu	Ala	Leu	Asn	Glu	Asp							
		275					280								

<210> 46

<211> 284
 <212> PRT
 <213> Brachydanio rerio

<400> 46
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Thr Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Ala Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Gly Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Leu Lys Asp Glu Glu Lys Met Glu Leu Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Val Glu Gly Glu Leu
 165 170 175
 Glu Arg Thr Glu Glu Arg Ala Glu Leu Asn Glu Gly Lys Cys Ser Glu
 180 185 190
 Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Met Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Ala Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Ala Lys Leu Glu Lys Thr Ile Asp Asp Leu
 245 250 255
 Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
 260 265 270
 Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
 275 280

<210> 47
 <211> 284
 <212> PRT
 <213> Coturnix coturnix japonica

<400> 47
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ser Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Asp Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110

Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
		115					120					125			
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
	130					135					140				
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
145				150					155						160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
			165						170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195				200						205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225				230					235						240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
			245						250					255	
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
			260					265					270		
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				
		275					280								

<210> 48
 <211> 284
 <212> PRT
 <213> Mus musculus

<400> 48															
Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
		20						25					30		
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln	Lys
		35					40					45			
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
	50					55					60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr	Asp
65					70					75					80
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85					90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
			100					105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
		115						120				125			
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
	130					135					140				
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
145				150					155						160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
			165						170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195				200						205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225				230					235						240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
			245						250					255	
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu

	260		265		270
Glu Leu Asp	His Ala Leu Asn Asp	Met Thr Ser Ile			
275		280			

<210> 49
 <211> 284
 <212> PRT
 <213> Rana temporaria

<400> 49
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gly Ala
 20 25 30
 Glu Asp Lys Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Met Gln Lys
 35 40 45
 Lys Met Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Leu Lys Asp Glu Glu Lys Ile Glu Leu Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Thr Val Ala Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
 260 265 270
 Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
 275 280

<210> 50
 <211> 284
 <212> PRT
 <213> Rattus norvegicus

<400> 50
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60

Lys 65	Asp	Ala	Gln	Glu	Lys 70	Leu	Glu	Leu	Ala	Glu 75	Lys	Lys	Ala	Thr	Asp 80
Ala	Glu	Ala	Asp	Val 85	Ala	Ser	Leu	Asn	Arg 90	Arg	Ile	Gln	Leu	Val 95	Glu
Glu	Glu	Leu	Asp 100	Arg	Ala	Gln	Glu	Arg 105	Leu	Ala	Thr	Ala	Leu	Gln 110	Lys
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala 120	Asp	Glu	Ser	Glu	Arg 125	Gly	Met	Lys
Val 130	Ile	Glu	Ser	Arg	Ala	Gln 135	Lys	Asp	Glu	Glu	Lys 140	Met	Glu	Ile	Gln
Glu 145	Ile	Gln	Leu	Lys	Glu 150	Ala	Lys	His	Ile	Ala 155	Glu	Asp	Ala	Asp 160	Arg
Lys	Tyr	Glu	Glu	Val 165	Ala	Arg	Lys	Leu	Val 170	Ile	Ile	Glu	Ser	Asp 175	Leu
Glu	Arg	Ala	Glu 180	Arg	Ala	Glu	Leu 185	Ser	Glu	Gly	Lys	Cys 190	Ala	Glu	
Leu	Glu	Glu	Glu 195	Leu	Lys	Thr 200	Val	Thr	Asn	Asn	Leu	Lys 205	Ser	Leu	Glu
Ala	Gln	Ala	Glu	Lys	Tyr 215	Ser	Gln	Lys	Glu	Asp 220	Lys	Tyr	Glu	Glu	Glu
Ile 225	Lys	Val	Leu	Ser 230	Asp	Lys	Leu	Lys	Glu	Ala 235	Glu	Thr	Arg	Ala	Glu
Phe	Ala	Glu	Arg	Ser 245	Val	Thr	Lys	Leu	Glu	Lys 250	Ser	Ile	Asp	Asp 255	Leu
Glu	Asp	Glu	Leu 260	Tyr	Ala	Gln	Lys	Leu 265	Lys	Tyr	Lys	Ala	Ile 270	Ser	Glu
Glu	Leu	Asp 275	His	Ala	Leu	Lys	Asp 280	Met	Thr	Ser	Ile				

<210> 51
 <211> 284
 <212> PRT
 <213> *Xenopus laevis*

<400> 51

Met 1	Asp	Ala	Ile	Lys 5	Lys	Lys	Met	Gln	Met 10	Leu	Lys	Leu	Asp	Lys 15	Glu
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala 25	Glu	Ala	Asp	Lys	Lys 30	Gly	Ala
Glu	Asp	Lys 35	Ser	Lys	Gln	Leu	Glu 40	Asp	Glu	Leu	Val 45	Ala	Leu	Gln	Lys
Lys 50	Leu	Lys	Gly	Thr	Glu	Asp 55	Glu	Leu	Asp	Lys	Tyr 60	Ser	Glu	Ala	Leu
Lys 65	Asp	Ala	Gln	Glu	Lys 70	Leu	Glu	Leu	Ser	Asp 75	Lys	Lys	Ala	Thr	Asp 80
Ala	Glu	Gly	Asp	Val 85	Ala	Ser	Leu	Asn 90	Arg	Arg	Ile	Gln	Leu	Val 95	Glu
Glu	Glu	Leu	Asp 100	Arg	Ala	Gln	Glu	Arg 105	Leu	Ser	Thr	Ala	Leu	Gln	Lys
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala 120	Asp	Glu	Ser	Glu	Arg 125	Gly	Met	Lys
Val 130	Ile	Glu	Asn	Arg	Ala	Leu 135	Lys	Asp	Glu	Glu	Lys 140	Met	Glu	Leu	Gln
Glu 145	Ile	Gln	Leu	Lys	Glu 150	Ala	Lys	His	Ile	Ala 155	Glu	Glu	Ala	Asp 160	Arg
Lys	Tyr	Glu	Glu	Val 165	Ala	Arg	Lys	Leu	Val 170	Ile	Ile	Glu	Gly	Asp 175	Leu
Glu	Arg	Ala	Glu 180	Arg	Ala	Glu	Leu 185	Ser	Glu	Ser	Lys	Cys 190	Ala	Glu	
Leu	Glu	Glu	Glu 195	Leu	Lys	Thr 200	Val	Thr	Asn	Asn	Leu	Lys 205	Ser	Leu	Glu
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu

210		215		220
Ile Lys Val Leu Thr Asp	Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu			
225	230	235		240
Phe Ala Glu Arg Thr Val Ala Lys Leu Glu Lys Ser Ile Asp Asp Leu				
	245	250		255
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu				
	260	265		270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile				
275	280			

<210> 52
 <211> 284
 <212> PRT
 <213> Gallus gallus

<400> 52

Met Glu Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu	
1	15
Asn Ala Ile Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gln Ala	
	30
Glu Asp Arg Cys Lys Gln Leu Glu Glu Glu Gln Gln Gly Leu Gln Lys	
	45
Lys Leu Lys Gly Thr Glu Asp Glu Val Glu Lys Tyr Ser Glu Ser Val	
50	60
Lys Glu Ala Gln Glu Lys Leu Glu Gln Ala Glu Lys Lys Ala Thr Asp	
65	80
Ala Glu Ala Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu	
	95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys	
	110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys	
	125
Val Ile Glu Asn Arg Ala Met Lys Asp Glu Glu Lys Met Glu Leu Gln	
130	140
Glu Met Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg	
145	160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Val Leu Glu Gly Glu Leu	
	175
Glu Arg Ser Glu Glu Arg Ala Glu Val Ala Glu Ser Lys Cys Gly Asp	
	190
Leu Glu Glu Glu Leu Lys Ile Val Thr Asn Asn Leu Lys Ser Leu Glu	
	205
Ala Gln Ala Asp Lys Tyr Ser Thr Lys Glu Asp Lys Tyr Glu Glu Glu	
210	220
Ile Lys Leu Leu Gly Glu Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu	
225	240
Phe Ala Glu Arg Ser Val Ala Lys Leu Glu Lys Thr Ile Asp Asp Leu	
	255
Glu Asp Glu Val Tyr Ala Gln Lys Met Lys Tyr Lys Ala Ile Ser Glu	
	270
Glu Leu Asp Asn Ala Leu Asn Asp Ile Thr Ser Leu	
275	280

<210> 53
 <211> 284
 <212> PRT
 <213> Homo sapiens

<400> 53

Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu

1	5	10	15
Asn Ala Ile Asp	Arg Ala Glu Gln	Ala Glu Ala Asp Lys	Lys Glu Ala
20	25	30	
Glu Asp Arg Cys Lys	Gln Leu Glu Glu	Gln Gln Ala Leu	Gln Lys
35	40	45	
Lys Leu Lys Gly Thr	Glu Asp Glu Val	Glu Lys Tyr Ser	Glu Ser Val
50	55	60	
Lys Glu Ala Gln Glu	Lys Leu Glu Gln	Ala Glu Lys Lys	Ala Thr Asp
65	70	75	80
Ala Glu Ala Asp	Val Ala Ser Leu	Asn Arg Arg Ile	Gln Leu Val
85	90	95	
Glu Glu Leu Asp	Arg Ala Gln Glu	Arg Leu Ala Thr	Ala Leu Gln
100	105	110	
Leu Glu Glu Ala	Glu Lys Ala Ala	Asp Glu Ser Glu	Arg Gly Met
115	120	125	
Val Ile Glu Asn Arg	Ala Met Lys Asp	Glu Glu Lys Met	Glu Leu Gln
130	135	140	
Glu Met Gln Leu Lys	Glu Ala Lys His	Ile Ala Glu Asp	Ser Asp Arg
145	150	155	160
Lys Tyr Glu Glu Val	Ala Arg Lys Leu	Val Ile Leu Glu	Gly Glu Leu
165	170	175	
Glu Arg Ser Glu Glu	Arg Ala Glu Val	Ala Glu Ser Lys	Cys Gly Asp
180	185	190	
Leu Glu Glu Glu Leu	Lys Ile Val Thr	Asn Asn Leu Lys	Ser Leu Glu
195	200	205	
Ala Gln Ala Asp	Lys Tyr Ser Thr	Lys Glu Asp Lys	Tyr Glu Glu
210	215	220	
Ile Lys Leu Leu Glu	Glu Lys Leu Lys	Glu Ala Glu Thr	Arg Ala Glu
225	230	235	240
Phe Ala Glu Arg Ser	Val Ala Lys Leu	Glu Lys Thr Ile	Asp Asp Leu
245	250	255	
Glu Asp Glu Val Tyr	Ala Gln Lys Met	Lys Tyr Lys Ala	Ile Ser Glu
260	265	270	
Glu Leu Asp Asn	Ala Leu Asn Asp	Ile Thr Ser Leu	
275	280		

<210> 54
 <211> 284
 <212> PRT
 <213> Mus musculus

<400> 54
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1 5 10 15
Asn Ala Ile Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gln Ala
20 25 30
Glu Asp Arg Cys Lys Gln Leu Glu Glu Glu Gln Gln Ala Leu Gln Lys
35 40 45
Lys Leu Lys Gly Thr Glu Asp Glu Val Glu Lys Tyr Ser Glu Ser Val
50 55 60
Lys Asp Ala Gln Glu Lys Leu Glu Gln Ala Glu Lys Lys Ala Thr Asp
65 70 75 80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
85 90 95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100 105 110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115 120 125
Val Ile Glu Asn Arg Ala Met Lys Asp Glu Glu Lys Met Glu Leu Gln
130 135 140
Glu Met Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ser Asp Arg
145 150 155 160

Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Leu	Glu	Gly	Glu	Leu
				165					170					175	
Glu	Arg	Ser	Glu	Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Lys	Cys	Gly	Asp
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Ile	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195					200					205			
Ala	Gln	Ala	Asp	Lys	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Leu	Leu	Glu	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Asp	Glu	Val	Tyr	Ala	Gln	Lys	Met	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
			260					265					270		
Glu	Leu	Asp	Asn	Ala	Leu	Asn	Asp	Ile	Thr	Ser	Leu				
		275					280								

<210> 55
 <211> 284
 <212> PRT
 <213> Sus scrofa

<400> 55

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Asp	Glu	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
			20					25					30		
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln	Lys
		35					40					45			
Lys	Leu	Lys	Ala	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
	50					55					60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr	Asp
65					70					75					80
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Phe	Glu
				85					90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
			100					105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
		115					120					125			
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
	130					135						140			
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
145					150					155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195					200					205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
			260					265					270		
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				
		275					280								

<210> 56

<211> 284
 <212> PRT
 <213> Gallus gallus

<400> 56
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ser Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Asp Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Gln Val Arg Gln
 180 185 190
 Leu Glu Glu Gln Leu Arg Ile Met Asp Gln Thr Leu Lys Ala Leu Met
 195 200 205
 Ala Ala Glu Asp Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln
 260 265 270
 Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met
 275 280

<210> 57
 <211> 284
 <212> PRT
 <213> Coturnix coturnix japonica

<400> 57
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ser Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Asp Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys

Leu	Glu	Glu	100	Glu	Lys	Ala	Ala	105	Asp	Glu	Ser	Glu	Arg	110	Gly	Met	Lys
		115						120					125				
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln		
		130						135					140				
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg		
145					150					155					160		
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu		
				165					170					175			
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu		
				180				185					190				
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu		
		195					200					205					
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu		
		210					215					220					
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu		
225					230					235					240		
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu		
				245					250					255			
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln		
			260					265					270				
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met						
		275					280										

<210> 58
 <211> 248
 <212> PRT
 <213> *Xenopus laevis*

<400> 58

Met	Ala	Gly	Ile	Thr	Ser	Leu	Glu	Ala	Val	Lys	Arg	Lys	Ile	Lys	Cys
1				5					10					15	
Leu	Gln	Asp	Gln	Ala	Asp	Glu	Ala	Glu	Glu	Arg	Ala	Glu	Lys	Leu	Gln
			20					25					30		
Arg	Glu	Arg	Asp	Met	Glu	Arg	Lys	Leu	Arg	Glu	Ala	Ala	Glu	Gly	Asp
		35					40					45			
Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Glu	Leu	Asp
		50				55				60					
Arg	Ala	Gln	Glu	Arg	Leu	Ser	Thr	Ala	Leu	Gln	Lys	Leu	Glu	Glu	Ala
65					70				75						80
Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Asn
				85					90					95	
Arg	Ala	Leu	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln	Glu	Ile	Gln	Leu
			100					105					110		
Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg	Lys	Tyr	Glu	Glu
		115					120					125			
Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu	Glu	Arg	Ala	Glu
		130					135					140			
Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	His	Tyr	Arg	Gln	Leu	Glu	Asp	Gln
145					150					155					160
Gln	Arg	Ile	Met	Asp	Gln	Thr	Leu	Lys	Thr	Leu	Ile	Ala	Ser	Glu	Glu
				165					170					175	
Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	Ile	Lys	Val	Leu
			180					185					190		
Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg
		195					200					205			
Thr	Val	Ala	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu	Glu	Glu	Lys	Val
		210					215				220				
Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln	Met	Leu	Asp	Gln
225					230					235					240
Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met								
				245											

<210> 59
 <211> 284
 <212> PRT
 <213> Gallus gallus

<400> 59
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys
 35 40 45
 Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu
 50 55 60
 His Lys Ser Glu Asp Ser Leu Leu Phe Ala Glu Glu Asn Ala Ala Lys
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln
 260 265 270
 Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met
 275 280

<210> 60
 <211> 284
 <212> PRT
 <213> Coturnix coturnix japonica

<400> 60
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys
 35 40 45
 Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu
 50 55 60
 His Lys Ser Glu Asp Ser Leu Leu Ser Ala Glu Glu Ile Ala Ala Lys
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95

Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
			100					105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
		115					120					125			
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
	130					135					140				
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
145					150					155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
		195					200					205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210					215					220				
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln
			260					265					270		
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met				
		275					280								

<210> 61
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 61

Cys	Arg	Leu	Arg	Ile	Phe	Leu	Arg	Thr	Ala	Ser	Ser	Glu	His	Leu	His
1				5					10					15	
Glu	Arg	Lys	Leu	Arg	Glu	Thr	Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn
			20					25					30		
Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg
		35				40						45			
Leu	Ala	Thr	Val	Leu	Gln	Lys	Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp
	50					55					60				
Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp
65				70					75					80	
Glu	Glu	Lys	Met	Glu	Ile	Gln	Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His
				85					90					95	
Ile	Ala	Glu	Asp	Ala	Asp	Arg	Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu
			100					105					110		
Val	Ile	Ile	Glu	Ser	Asp	Leu	Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu
		115					120					125			
Ser	Glu	Gly	Gln	Val	Arg	Gln	Leu	Glu	Glu	Gln	Leu	Arg	Ile	Met	Asp
	130					135					140				
Ser	Asp	Leu	Glu	Ser	Ile	Asn	Ala	Ala	Glu	Asp	Lys	Tyr	Ser	Gln	Lys
145					150					155					160
Glu	Asp	Arg	Tyr	Glu	Glu	Glu	Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys
				165					170					175	
Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu
			180					185					190		
Glu	Lys	Ser	Ile	Asp	Asp	Leu	Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu
		195					200					205			
Glu	Asn	Leu	Ser	Met	His	Gln	Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu
	210					215					220				
Asn	Asn	Met													
225															

<210> 62
 <211> 284
 <212> PRT
 <213> Rattus norvegicus

<400> 62
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Asp Arg Ser Lys Gln Leu Glu Glu Asp Ile Ser Ala Lys Glu Lys
 35 40 45
 Leu Leu Arg Ala Ser Glu Asp Glu Arg Asp Arg Val Leu Glu Glu Leu
 50 55 60
 His Lys Ala Glu Asp Ser Leu Leu Ala Ala Asp Glu Thr Ala Ala Lys
 65 70 75 80
 Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Ser Met His Gln
 260 265 270
 Met Leu His Gln Thr Leu Leu Glu Leu Asn Asn Met
 275 280

<210> 63
 <211> 281
 <212> PRT
 <213> Rattus norvegicus

<400> 63
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
 35 40 45
 Lys Leu Lys Ala Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys

			100					105					110			
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	
		115					120					125				
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln	
	130					135					140					
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg	
145					150					155					160	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu	
				165					170					175		
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu	
			180					185					190			
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
		195					200					205				
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	
	210					215					220					
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	
225					230					235					240	
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu	
				245					250					255		
Glu	Asp	Gln	Leu	Tyr	His	Gln	Leu	Glu	Gln	Asn	Arg	Arg	Leu	Thr	Asn	
			260					265					270			
Glu	Leu	Lys	Leu	Ala	Leu	Asn	Glu	Asp								
		275					280									

<210> 64
 <211> 251
 <212> PRT
 <213> Rattus norvegicus

<400>	64															
Met	Ala	Gly	Ser	Ser	Ser	Leu	Glu	Ala	Val	Arg	Arg	Lys	Ile	Arg	Ser	
1				5					10					15		
Leu	Gln	Glu	Gln	Ala	Asp	Ala	Ala	Glu	Glu	Arg	Ala	Gly	Ser	Leu	Gln	
			20					25					30			
Arg	Glu	Leu	Asp	Gln	Glu	Arg	Lys	Leu	Arg	Glu	Thr	Ala	Glu	Ala	Asp	
		35					40					45				
Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Glu	Leu	Asp	
	50					55					60					
Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys	Leu	Glu	Glu	Ala	
65					70					75					80	
Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Ser	
				85					90					95		
Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln	Glu	Ile	Gln	Leu	
			100					105					110			
Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg	Lys	Tyr	Glu	Glu	
		115					120					125				
Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu	Glu	Arg	Ala	Glu	
	130					135					140					
Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu	Leu	Glu	Glu	Glu	
145					150					155					160	
Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	Ala	Gln	Ala	Glu	
				165					170					175		
Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	Ile	Lys	Val	Leu	
			180					185					190			
Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg	
		195					200					205				
Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu	Glu	Asp	Lys	Phe	
	210					215					220					
Leu	Cys	Phe	Ser	Pro	Pro	Lys	Thr	Pro	Ser	Ser	Ser	Arg	Met	Ser	His	
225					230					235					240	
Leu	Ser	Glu	Leu	Cys	Ile	Cys	Leu	Leu	Ser	Ser						
				245					250							

<210> 65
 <211> 245
 <212> PRT
 <213> Rattus norvegicus

<400> 65
 Met Ala Gly Ser Ser Ser Leu Glu Ala Val Arg Arg Lys Ile Arg Ser
 1 5 10 15
 Leu Gln Glu Gln Ala Asp Ala Ala Glu Glu Arg Ala Gly Ser Leu Gln
 20 25 30
 Arg Glu Leu Asp Gln Glu Arg Lys Leu Arg Glu Thr Ala Glu Ala Asp
 35 40 45
 Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Leu Asp
 50 55 60
 Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala
 65 70 75 80
 Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Ser
 85 90 95
 Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu
 100 105 110
 Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu
 115 120 125
 Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu Glu Arg Ala Glu
 130 135 140
 Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu Leu Glu Glu Glu
 145 150 155 160
 Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu
 165 170 175
 Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu Ile Lys Val Leu
 180 185 190
 Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg
 195 200 205
 Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Asp Gln Leu
 210 215 220
 Tyr His Gln Leu Glu Gln Asn Arg Arg Leu Thr Asn Glu Leu Lys Leu
 225 230 235 240
 Ala Leu Asn Glu Asp
 245

<210> 66
 <211> 961
 <212> PRT
 <213> Bos taurus

<400> 66
 Met Asn Phe Leu Arg Gly Val Met Gly Gly Gln Ser Ala Gly Pro Gln
 1 5 10 15
 His Thr Glu Ala Glu Thr Ile Gln Lys Leu Cys Asp Arg Val Ala Ser
 20 25 30
 Ser Thr Leu Leu Asp Asp Arg Arg Asn Ala Val Arg Ala Leu Lys Ser
 35 40 45
 Leu Ser Lys Lys Tyr Arg Leu Glu Val Gly Ile Gln Ala Met Glu His
 50 55 60
 Leu Ile His Val Leu Gln Thr Asp Arg Ser Asp Ser Glu Ile Ile Gly
 65 70 75 80
 Tyr Ala Leu Asp Thr Leu Tyr Asn Ile Ile Ser Asn Asp Glu Glu Glu
 85 90 95
 Glu Val Glu Glu Asn Ser Thr Arg Gln Ser Glu Asp Leu Gly Ser Gln
 100 105 110
 Phe Thr Glu Ile Phe Ile Lys Gln Gln Glu Asn Val Thr Leu Leu Leu
 115 120 125

Ser	Leu	Leu	Glu	Glu	Phe	Asp	Phe	His	Val	Arg	Trp	Pro	Gly	Val	Lys
130						135					140				
Leu	Leu	Thr	Ser	Leu	Leu	Lys	Gln	Leu	Gly	Pro	Gln	Val	Gln	Gln	Ile
145					150					155					160
Ile	Leu	Val	Ser	Pro	Met	Gly	Val	Ser	Arg	Leu	Met	Asp	Leu	Leu	Ala
				165					170						175
Asp	Ser	Arg	Glu	Val	Ile	Arg	Asn	Asp	Gly	Val	Leu	Leu	Leu	Gln	Ala
			180					185					190		
Leu	Thr	Arg	Ser	Asn	Gly	Ala	Ile	Gln	Lys	Ile	Val	Ala	Phe	Glu	Asn
		195					200					205			
Ala	Phe	Glu	Arg	Leu	Leu	Asp	Ile	Ile	Thr	Glu	Glu	Gly	Asn	Ser	Asp
	210					215					220				
Gly	Gly	Ile	Val	Val	Glu	Asp	Cys	Leu	Ile	Leu	Leu	Gln	Asn	Leu	Leu
225					230					235					240
Lys	Asn	Asn	Asn	Ser	Asn	Gln	Asn	Phe	Phe	Lys	Glu	Gly	Ser	Tyr	Ile
				245				250						255	
Gln	Arg	Met	Lys	Pro	Trp	Phe	Glu	Val	Gly	Asp	Glu	Asn	Ser	Gly	Trp
			260				265							270	
Ser	Ala	Gln	Lys	Val	Thr	Asn	Leu	His	Leu	Met	Leu	Gln	Leu	Val	Arg
		275				280						285			
Val	Leu	Val	Ser	Pro	Asn	Asn	Pro	Pro	Gly	Ala	Thr	Ser	Ser	Cys	Gln
	290					295					300				
Lys	Ala	Met	Phe	Gln	Cys	Gly	Leu	Leu	Gln	Gln	Leu	Cys	Thr	Ile	Leu
305					310				315						320
Met	Ala	Thr	Gly	Val	Pro	Ala	Asp	Ile	Leu	Thr	Glu	Thr	Ile	Asn	Thr
			325					330						335	
Val	Ser	Glu	Val	Ile	Arg	Gly	Cys	Gln	Val	Asn	Gln	Asp	Tyr	Phe	Ala
			340				345						350		
Ser	Val	Asn	Ala	Pro	Ser	Asn	Pro	Arg	Pro	Ala	Ile	Val	Val	Val	Leu
		355				360					365				
Leu	Met	Ser	Met	Val	Asn	Glu	Arg	Gln	Pro	Phe	Val	Leu	Arg	Cys	Ala
	370				375						380				
Val	Leu	Tyr	Cys	Phe	Gln	Cys	Phe	Leu	Tyr	Lys	Asn	Gln	Lys	Gly	Gln
385					390					395					400
Gly	Glu	Ile	Val	Ser	Thr	Leu	Leu	Pro	Ser	Thr	Ile	Asp	Ala	Thr	Gly
			405					410						415	
Asn	Thr	Val	Ser	Ala	Gly	Gln	Leu	Leu	Cys	Gly	Gly	Leu	Phe	Ser	Thr
		420					425						430		
Asp	Ser	Leu	Ser	Asn	Trp	Cys	Ala	Ala	Val	Ala	Leu	Ala	His	Ala	Leu
		435				440						445			
Gln	Glu	Asn	Ala	Thr	Gln	Lys	Glu	Gln	Leu	Leu	Arg	Val	Gln	Leu	Ala
	450					455					460				
Thr	Ser	Ile	Gly	Asn	Pro	Pro	Val	Ser	Leu	Leu	Gln	Gln	Cys	Thr	Asn
465					470					475					480
Ile	Leu	Ser	Gln	Gly	Ser	Lys	Ile	Gln	Thr	Arg	Val	Gly	Leu	Leu	Met
			485					490						495	
Leu	Leu	Cys	Thr	Trp	Leu	Ser	Asn	Cys	Pro	Ile	Ala	Val	Thr	His	Phe
		500					505						510		
Leu	His	Asn	Ser	Ala	Asn	Val	Pro	Phe	Leu	Thr	Gly	Gln	Ile	Ala	Glu
		515				520						525			
Asn	Leu	Gly	Glu	Glu	Glu	Gln	Leu	Val	Gln	Gly	Leu	Cys	Ala	Leu	Leu
	530					535					540				
Leu	Gly	Ile	Ser	Ile	Tyr	Phe	Asn	Asp	Asn	Ser	Leu	Glu	Thr	Tyr	Met
545					550					555					560
Lys	Glu	Lys	Leu	Lys	Gln	Leu	Ile	Glu	Lys	Arg	Ile	Gly	Lys	Glu	Asn
			565					570						575	
Phe	Ile	Glu	Lys	Leu	Gly	Phe	Ile	Ser	Lys	His	Glu	Leu	Tyr	Ser	Arg
		580						585					590		
Ala	Ser	Gln	Lys	Pro	Gln	Pro	Asn	Phe	Pro	Ser	Pro	Glu	Tyr	Met	Ile
		595					600					605			
Phe	Asp	His	Glu	Phe	Thr	Lys	Leu	Val	Lys	Glu	Leu	Glu	Gly	Val	Ile
	610					615					620				
Thr	Lys	Ala	Ile	Tyr	Lys	Ser	Ser	Glu	Glu	Asp	Lys	Lys	Glu	Glu	Glu

625					630					635					640
Val	Lys	Lys	Thr	Leu	Glu	Gln	His	Asp	Ser	Ile	Val	Thr	His	Tyr	Lys
				645					650					655	
Asn	Met	Ile	Arg	Glu	Gln	Asp	Leu	Gln	Leu	Glu	Glu	Leu	Lys	Gln	Gln
			660					665					670		
Ile	Ser	Thr	Leu	Lys	Cys	Gln	Asn	Glu	Gln	Leu	Gln	Thr	Ala	Val	Thr
		675					680					685			
Gln	Gln	Val	Ser	Gln	Ile	Gln	Gln	His	Lys	Asp	Gln	Tyr	Asn	Leu	Leu
	690					695					700				
Lys	Val	Gln	Leu	Gly	Lys	Asp	Ser	Gln	His	Gln	Gly	Pro	Tyr	Thr	Asp
705				710						715					720
Gly	Ala	Gln	Met	Asn	Gly	Val	Gln	Pro	Glu	Glu	Ile	Ser	Arg	Leu	Arg
			725					730						735	
Glu	Glu	Ile	Glu	Glu	Leu	Lys	Ser	Asn	Arg	Glu	Leu	Leu	Gln	Ser	Gln
			740					745					750		
Leu	Ala	Glu	Lys	Asp	Ser	Leu	Ile	Glu	Asn	Leu	Lys	Ser	Ser	Gln	Leu
	755					760						765			
Ser	Pro	Gly	Thr	Asn	Glu	Gln	Ser	Ser	Ala	Thr	Ala	Gly	Asp	Ser	Glu
	770					775					780				
Gln	Ile	Ala	Glu	Leu	Lys	Gln	Glu	Leu	Ala	Thr	Leu	Lys	Ser	Gln	Leu
785					790					795					800
Asn	Ser	Gln	Ser	Val	Glu	Ile	Thr	Lys	Leu	Gln	Thr	Glu	Lys	Gln	Glu
			805					810						815	
Leu	Leu	Gln	Lys	Thr	Glu	Ala	Phe	Ala	Lys	Ser	Ala	Pro	Val	Pro	Gly
			820					825					830		
Glu	Ser	Glu	Thr	Val	Ile	Ala	Thr	Lys	Thr	Thr	Asp	Val	Glu	Gly	Arg
	835						840					845			
Leu	Ser	Ala	Leu	Leu	Gln	Glu	Thr	Lys	Glu	Leu	Lys	Asn	Glu	Ile	Lys
	850				855						860				
Ala	Leu	Ser	Glu	Glu	Arg	Thr	Ala	Ile	Lys	Glu	Gln	Leu	Asp	Ser	Ser
865					870					875					880
Asn	Ser	Thr	Ile	Ala	Ile	Leu	Gln	Asn	Glu	Lys	Asn	Lys	Leu	Glu	Val
			885					890						895	
Asp	Ile	Thr	Asp	Ser	Lys	Lys	Glu	Gln	Asp	Asp	Leu	Leu	Val	Leu	Leu
			900					905					910		
Ala	Asp	Gln	Asp	Gln	Lys	Ile	Phe	Ser	Leu	Lys	Asn	Lys	Leu	Lys	Glu
		915					920					925			
Leu	Gly	His	Pro	Val	Glu	Glu	Glu	Asp	Glu	Leu	Glu	Ser	Gly	Asp	Gln
	930					935					940				
Asp	Asp	Glu	Asp	Asp	Glu	Asp	Glu	Asp	Asp	Gly	Lys	Glu	Gln	Gly	His
945					950					955					960
Ile															

<210> 67
 <211> 959
 <212> PRT
 <213> Rattus norvegicus

<400> 67
 Met Asn Phe Leu Arg Gly Val Met Gly Gly Gln Ser Ala Gly Pro Gln
 1 5 10 15
 His Thr Glu Ala Glu Thr Ile Gln Lys Leu Cys Asp Arg Val Ala Ser
 20 25 30
 Ser Thr Leu Leu Asp Asp Arg Arg Asn Ala Val Arg Ala Leu Lys Ser
 35 40 45
 Leu Ser Lys Lys Tyr Arg Leu Glu Val Gly Ile Gln Ala Met Glu His
 50 55 60
 Leu Ile His Val Leu Gln Thr Asp Arg Ser Asp Ser Glu Ile Ile Ala
 65 70 75 80
 Tyr Ala Leu Asp Thr Leu Tyr Asn Ile Ile Ser Asn Asp Glu Glu Glu
 85 90 95

Glu	Val	Glu	Glu	Asn	Ser	Thr	Arg	Gln	Ser	Glu	Asp	Leu	Gly	Ser	Gln
			100					105					110		
Phe	Thr	Glu	Ile	Phe	Ile	Lys	Gln	Pro	Glu	Asn	Val	Thr	Leu	Leu	Leu
		115					120					125			
Ser	Leu	Leu	Glu	Glu	Phe	Asp	Phe	His	Val	Arg	Trp	Pro	Gly	Val	Arg
	130					135					140				
Leu	Leu	Thr	Ser	Leu	Leu	Lys	Gln	Leu	Gly	Pro	Pro	Val	Gln	Gln	Ile
145					150					155					160
Ile	Leu	Val	Ser	Pro	Met	Gly	Val	Ser	Lys	Leu	Met	Asp	Leu	Leu	Ala
				165					170					175	
Asp	Ser	Arg	Glu	Ile	Ile	Arg	Asn	Asp	Gly	Val	Leu	Leu	Leu	Gln	Ala
			180					185					190		
Leu	Thr	Arg	Ser	Asn	Gly	Ala	Ile	Gln	Lys	Ile	Val	Ala	Phe	Glu	Asn
	195						200					205			
Ala	Phe	Glu	Arg	Leu	Leu	Asp	Ile	Ile	Thr	Glu	Glu	Gly	Asn	Ser	Asp
	210					215					220				
Gly	Gly	Ile	Val	Val	Glu	Asp	Cys	Leu	Ile	Leu	Leu	Gln	Asn	Leu	Leu
225					230					235					240
Lys	Asn	Asn	Asn	Ser	Asn	Gln	Asn	Phe	Phe	Lys	Glu	Gly	Ser	Tyr	Ile
				245					250					255	
Gln	Arg	Met	Lys	Ala	Trp	Phe	Glu	Val	Gly	Asp	Glu	Asn	Pro	Gly	Trp
			260					265					270		
Ser	Ala	Gln	Lys	Val	Thr	Asn	Leu	His	Leu	Met	Leu	Gln	Leu	Val	Arg
	275						280					285			
Val	Leu	Val	Ser	Pro	Thr	Asn	Pro	Pro	Gly	Ala	Thr	Ser	Ser	Cys	Gln
	290					295					300				
Lys	Ala	Met	Phe	Gln	Cys	Gly	Leu	Leu	Gln	Gln	Leu	Cys	Thr	Ile	Leu
305					310					315					320
Met	Ala	Thr	Gly	Ile	Pro	Ala	Asp	Ile	Leu	Thr	Glu	Thr	Ile	Asn	Thr
			325						330					335	
Val	Ser	Glu	Val	Ile	Arg	Gly	Cys	Gln	Val	Asn	Gln	Asp	Tyr	Phe	Ala
			340					345					350		
Ser	Val	Asn	Ala	Pro	Ser	Asn	Pro	Pro	Arg	Pro	Ala	Ile	Val	Val	Leu
	355						360					365			
Leu	Met	Ser	Met	Val	Asn	Glu	Arg	Gln	Pro	Phe	Val	Leu	Arg	Cys	Ala
	370					375					380				
Val	Leu	Tyr	Cys	Phe	Gln	Cys	Phe	Leu	Tyr	Lys	Asn	Glu	Lys	Gly	Gln
385					390					395					400
Gly	Glu	Ile	Val	Ala	Thr	Leu	Leu	Pro	Ser	Thr	Ile	Asp	Ala	Thr	Gly
				405					410					415	
Asn	Ser	Val	Ser	Ala	Gly	Gln	Leu	Leu	Cys	Gly	Gly	Leu	Phe	Ser	Thr
			420					425					430		
Asp	Ser	Leu	Ser	Asn	Trp	Cys	Ala	Ala	Val	Ala	Leu	Ala	His	Ala	Leu
			435				440					445			
Gln	Gly	Asn	Ala	Thr	Gln	Lys	Glu	Gln	Leu	Leu	Arg	Val	Gln	Leu	Ala
	450					455					460				
Thr	Ser	Ile	Gly	Asn	Pro	Pro	Val	Ser	Leu	Leu	Gln	Gln	Cys	Thr	Asn
465					470					475					480
Ile	Leu	Ser	Gln	Gly	Ser	Lys	Ile	Gln	Thr	Arg	Val	Gly	Leu	Leu	Met
				485					490					495	
Leu	Leu	Cys	Thr	Trp	Leu	Ser	Asn	Cys	Pro	Ile	Ala	Val	Thr	His	Phe
			500					505					510		
Leu	His	Asn	Ser	Ala	Asn	Val	Pro	Phe	Leu	Thr	Gly	Gln	Ile	Ala	Glu
		515					520					525			
Asn	Leu	Gly	Glu	Glu	Glu	Gln	Leu	Val	Gln	Gly	Leu	Cys	Ala	Leu	Leu
						535					540				
Leu	Gly	Ile	Ser	Ile	Tyr	Phe	Asn	Asp	Asn	Ser	Leu	Glu	Asn	Tyr	Thr
545					550					555					560
Lys	Glu	Lys	Leu	Lys	Gln	Leu	Ile	Glu	Lys	Arg	Ile	Gly	Lys	Glu	Asn
				565					570					575	
Tyr	Ile	Glu	Lys	Leu	Gly	Phe	Ile	Ser	Lys	His	Glu	Leu	Tyr	Ser	Arg
			580					585					590		
Ala	Ser	Gln	Lys	Pro	Gln	Pro	Asn	Phe	Pro	Ser	Pro	Glu	Tyr	Met	Ile

Gln	Phe	Glu	Val	His	Thr	Gln	Asn	Leu	Pro	Gln	Glu	Leu	Gln	Thr	Met
				85					90					95	
Thr	Arg	Glu	Leu	Cys	Leu	Leu	Lys	Glu	Gln	Leu	Leu	Glu	Lys	Asp	Glu
			100					105					110		
Glu	Ile	Val	Glu	Leu	Lys	Ala	Glu	Arg	Asn	Asn	Thr	Arg	Leu	Leu	Leu
		115					120					125			
Glu	His	Leu	Glu	Cys	Leu	Val	Ser	Arg	His	Glu	Arg	Ser	Leu	Arg	Met
	130					135					140				
Thr	Val	Met	Lys	Arg	Gln	Ala	Gln	Asn	His	Ala	Gly	Val	Ser	Ser	Glu
145					150					155					160
Val	Glu	Val	Leu	Lys	Ala	Leu	Lys	Ser	Leu	Phe	Glu	His	His	Lys	Ala
				165				170						175	
Leu	Asp	Glu	Lys	Val	Arg	Glu	Arg	Leu	Arg	Val	Ala	Met	Glu	Arg	Val
			180					185					190		
Ala	Thr	Leu	Glu	Glu	Glu	Leu	Ser	Thr	Lys	Gly	Asp	Glu	Asn	Ser	Ser
		195					200					205			
Leu	Lys	Ala	Arg	Ile	Ala	Thr	Tyr	Ala	Ala	Glu	Ala	Glu	Glu	Ala	Met
	210					215					220				
Ala	Ser	Asn	Ala	Pro	Ile	Asn	Gly	Ser	Ile	Ser	Ser	Glu	Ser	Ala	Asn
225					230					235					240
Arg	Leu	Ile	Glu	Met	Gln	Glu	Ala	Leu	Glu	Arg	Met	Lys	Thr	Glu	Leu
				245					250					255	
Ala	Asn	Ser	Leu	Lys	Gln	Ser	Thr	Glu	Ile	Thr	Thr	Arg	Asn	Ala	Glu
			260					265					270		
Leu	Glu	Asp	Gln	Leu	Thr	Glu	Asp	Ala	Arg	Glu	Lys	His	Ala	Ala	Gln
		275					280					285			
Glu	Ser	Ile	Val	Arg	Leu	Lys	Asn	Gln	Ile	Cys	Glu	Leu	Asp	Ala	Gln
	290					295					300				
Arg	Thr	Asp	Gln	Glu	Thr	Arg	Ile	Thr	Thr	Phe	Glu	Ser	Arg	Phe	Leu
305					310					315					320
Thr	Ala	Gln	Arg	Glu	Ser	Thr	Cys	Ile	Arg	Asp	Leu	Asn	Asp	Lys	Leu
				325					330					335	
Glu	His	Gln	Leu	Ala	Asn	Lys	Asp	Ala	Ala	Val	Arg	Leu	Asn	Glu	Glu
			340					345					350		
Lys	Val	His	Ser	Leu	Gln	Glu	Arg	Leu	Glu	Leu	Ala	Glu	Lys	Gln	Leu
		355					360					365			
Ala	Gln	Ser	Leu	Lys	Lys	Ala	Glu	Ser	Leu	Pro	Ser	Val	Glu	Ala	Glu
		370				375					380				
Leu	Gln	Gln	Arg	Met	Glu	Ala	Leu	Thr	Ala	Ala	Glu	Gln	Lys	Ser	Val
					390					395					400
Ser	Ala	Glu	Glu	Arg	Ile	Gln	Arg	Leu	Asp	Arg	Asn	Ile	Gln	Glu	Leu
				405					410					415	
Ser	Ala	Glu	Leu	Glu	Arg	Ala	Val	Gln	Arg	Glu	Arg	Met	Asn	Glu	Glu
			420					425					430		
His	Ser	Gln	Arg	Leu	Ser	Ser	Thr	Val	Asp	Lys	Leu	Leu	Ser	Glu	Ser
		435					440					445			
Asn	Asp	Arg	Leu	Gln	Leu	His	Leu	Lys	Glu	Arg	Met	Gln	Ala	Leu	Asp
	450					455					460				
Asp	Lys	Asn	Arg	Leu	Thr	Gln	Gln	Leu	Asp	Gly	Thr	Lys	Lys	Ile	Tyr
	465				470					475					480
Asp	Gln	Ala	Glu	Arg	Ile	Lys	Asp	Arg	Leu	Gln	Arg	Asp	Asn	Glu	Ser
				485					490					495	
Leu	Arg	Gln	Glu	Ile	Glu	Ala	Leu	Arg	Gln	Gln	Leu	Tyr	Asn	Ala	Arg
			500					505					510		
Thr	Ala	Gln	Phe	Gln	Ser	Arg	Met	His	Ala	Ile	Pro	Phe	Thr	His	Ala
			515				520					525			
Gln	Asn	Ile	Val	Gln	Gln	Gln	Pro	Gln	Ala	Ser	Ile	Ala	Gln	Gln	Ser
	530					535					540				
Ala	Tyr	Gln	Met	Tyr	Lys	Gln	Gln	Pro	Ala	Gln	Gln	Tyr	Gln	Thr	Val
	545				550					555					560
Gly	Met	Arg	Arg	Pro	Asn	Lys	Gly	Arg	Ile	Ser	Ala	Leu	Gln	Asp	Asp
				565					570					575	
Pro	Asn	Lys	Val	Gln	Thr	Leu	Asn	Glu	Gln	Glu	Trp	Asp	Arg	Leu	Gln

			580					585					590				
Gln	Ala	His	Val	Leu	Ala	Asn	Val	Gln	Gln	Ala	Phe	Ser	Ser	Ser	Pro		
		595					600					605					
Ser	Leu	Ala	Asp	Val	Gly	Gln	Ser	Thr	Leu	Pro	Arg	Pro	Asn	Thr	Ala		
	610					615					620						
Val	Gln	His	Gln	Gln	Asp	Met	Met	Met	Asn	Ser	Gly	Met	Gly	Met	Pro		
625					630					635					640		
Ser	Gly	Met	Gln	Gly	Gly	Met	Gln	Gly	Gly	Met	Gly	Gly	Gly	Gln	Asp		
				645					650					655			
Ala	Gln	Met	Leu	Ala	Ser	Met	Leu	Gln	Asp	Arg	Leu	Asp	Ala	Ile	Asn		
			660					665					670				
Thr	Glu	Ile	Arg	Leu	Ile	Gln	Gln	Glu	Lys	His	His	Ala	Glu	Arg	Val		
		675					680					685					
Ala	Glu	Gln	Leu	Glu	Arg	Ser	Ser	Arg	Glu	Phe	Tyr	Asp	Asp	Gln	Gly		
	690					695					700						
Ile	Ser	Thr	Arg	Ser	Ser	Pro	Arg	Ala	Ser	Pro	Gln	Leu	Asp	Asn	Met		
705					710					715					720		
Arg	Gln	His	Lys	Tyr	Asn	Thr	Leu	Pro	Ala	Asn	Val	Ser	Gly	Asp	Arg		
				725					730					735			
Arg	Tyr	Asp	Ile	Tyr	Gly	Asn	Pro	Gln	Phe	Val	Asp	Asp	Arg	Met	Val		
			740					745					750				
Arg	Asp	Leu	Asp	Tyr	Glu	Pro	Arg	Arg	Gly	Tyr	Asn	Gln	Phe	Asp	Glu		
		755					760					765					
Met	Gln	Tyr	Glu	Arg	Asp	Arg	Met	Ser	Pro	Ala	Ser	Ser	Val	Ala	Ser		
	770					775					780						
Ser	Thr	Asp	Gly	Val	Leu	Gly	Gly	Lys	Lys	Lys	Arg	Ser	Asn	Ser	Ser		
785					790					795					800		
Ser	Gly	Leu	Lys	Thr	Leu	Gly	Arg	Phe	Phe	Asn	Lys	Lys	Lys	Asn	Ser		
				805					810					815			
Ser	Ser	Asp	Leu	Phe	Lys	Arg	Asn	Gly	Asp	Tyr	Ser	Asp	Gly	Glu	Gln		
			820					825					830				
Ser	Gly	Thr	Glu	Gly	Asn	Gln	Lys	Ala	Asp	Tyr	Asp	Arg	Arg	Lys	Lys		
		835					840					845					
Lys	Lys	His	Glu	Leu	Leu	Glu	Glu	Ala	Met	Lys	Ala	Arg	Thr	Pro	Phe		
	850					855					860						
Ala	Leu	Trp	Asn	Gly	Pro	Thr	Val	Val	Ala	Trp	Leu	Glu	Leu	Trp	Val		
865					870					875					880		
Gly	Met	Pro	Ala	Trp	Tyr	Val	Ala	Ala	Cys	Arg	Ala	Asn	Val	Lys	Ser		
				885					890					895			
Gly	Ala	Ile	Met	Ser	Ala	Leu	Ser	Asp	Gln	Glu	Ile	Gln	Lys	Glu	Ile		
			900					905					910				
Gly	Ile	Ser	Asn	Pro	Leu	His	Arg	Leu	Lys	Leu	Arg	Leu	Ala	Ile	Gln		
		915					920					925					
Glu	Met	Val	Ser	Leu	Thr	Ser	Pro	Ser	Ala	Pro	Arg	Thr	Ala	Arg	Leu		
	930					935											

Gly	Ser	Gln	Asp	Val	Pro	Asn	Arg	Gln	Leu	Leu	Glu	Lys	Lys	Phe	Ile
1090						1095					1100				
Gly	Leu	Val	Asn	Asp	His	Arg	Gln	Gln	Ser	Asp	Pro	His	Pro	Arg	Ser
1105					1110					1115					1120
Gly	Ser	Ser	Arg	Lys	Asn	Asp	Ser	Ile	Ala	Lys	Ser	Tyr	Glu	Phe	His
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 <212> PRT
 <213> Caenorhabditis elegans

<400> 69

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			20					25					30		
Asp	Ala	Phe	Ala	Ala	Leu	Val	Asp	Arg	Glu	Arg	Asp	Ser	Ser	Arg	Ser
		35					40					45			
Ser	Gly	Ser	Gly	Asn	Ile	Phe	Lys	Asp	Asn	Gly	Ser	Ile	Lys	Arg	Arg
	50				55					60					
Gln	Ala	Leu	Pro	Tyr	Val	Thr	His	Tyr	Ser	Asp	Ser	Gly	Phe	Gly	Ser
65					70				75						80
Ala	Pro	Ser	Ala	Gly	Ser	Ser	Cys	Ser	Tyr	Leu	Pro	Pro	Pro	Pro	Pro
				85					90					95	
Tyr	Arg	Met	Arg	Gly	Ser	Gly	Gly	Leu	Ser	Ser	Lys	Pro	Gln	His	Lys
			100					105					110		
Ile	His	Arg	Ser	Leu	Ser	Asp	Ser	Lys	Tyr	Thr	Ala	Ser	Leu	Met	Thr
		115					120					125			
Thr	Gly	Val	Pro	Thr	Leu	Pro	Leu	Leu	Ser	Met	Thr	Pro	Phe	Asn	Gln
	130					135					140				
Leu	Gln	Ser	Arg	Asp	Ala	Arg	Gly	Ala	Ser	Trp	Ile	Ser	Leu	Val	Arg
145					150					155					160
Ala	Pro	Asn	Phe	His	Leu	Tyr	Cys	Phe	Phe	Val	Phe	Phe	Phe	Ser	Phe
				165					170					175	
Asn	Ile	Asp	Glu	Thr	Phe	Arg	Asn	Ser	Asn	Ile	Ser	Ser	Pro	Ser	Pro
		180						185					190		
Ser	Met	Ser	Thr	Val	Ser	Cys	Pro	Glu	Tyr	Pro	Glu	Leu	Gln	Asp	Lys
		195					200					205			
Leu	His	Arg	Leu	Ala	Met	Ala	Arg	Asp	Ser	Leu	Gln	Leu	Gln	Val	Ser
	210					215					220				
Val	Leu	Ser	Glu	Gln	Val	Gly	Ala	Gln	Lys	Glu	Lys	Ile	Lys	Asp	Leu
225					230					235					240
Glu	Thr	Val	Ile	Ala	Leu	Lys	Arg	Asn	Asn	Leu	Thr	Ser	Thr	Glu	Glu
				245					250					255	
Leu	Leu	Gln	Asp	Lys	Tyr	His	Arg	Ile	Asp	Glu	Cys	Gln	Glu	Leu	Glu
			260					265					270		
Ser	Lys	Lys	Met	Asp	Leu	Leu	Ala	Glu	Val	Ser	Ser	Leu	Lys	Leu	Arg
		275					280					285			
Tyr	Ala	Thr	Leu	Glu	Arg	Glu	Lys	Asn	Glu	Thr	Glu	Lys	Lys	Leu	Arg
	290					295					300				
Leu	Ser	Gln	Asn	Glu	Met	Asp	His	Val	Asn	Gln	Ser	Met	His	Gly	Met
305					310					315					320
Val	Val	Gln	Gln	Gln	Leu	Ala	His	His	Thr	Asn	Gly	His	Ser	Ser	Gly
				325					330					335	
Gly	Tyr	Met	Ser	Pro	Leu	Arg	Glu	His	Arg	Ser	Glu	Lys	Asn	Asp	Asp
			340					345					350		
Glu	Met	Ser	Gln	Leu	Arg	Thr	Ala	Val	Gln	Arg	Leu	Met	Ala	Asp	Asn
		355					360					365			
Glu	His	Lys	Ser	Leu	Gln	Ile	Asn	Thr	Leu	Arg	Asn	Ala	Leu	Asp	Glu

370						375						380					
Gln	Met	Arg	Ser	Arg	Ser	Gln	Gln	Glu	Asp	Phe	Tyr	Ala	Ser	Gln	Arg		
385					390					395					400		
Asn	Tyr	Thr	Asp	Asn	Phe	Asp	Val	Asn	Ala	Gln	Ile	Arg	Arg	Ile	Leu		
				405					410					415			
Met	Asp	Glu	Pro	Ser	Asp	Ser	Met	Ser	His	Ser	Thr	Ser	Phe	Pro	Val		
			420					425					430				
Ser	Leu	Ser	Ser	Thr	Thr	Ser	Asn	Gly	Lys	Gly	Pro	Arg	Ser	Thr	Val		
		435					440					445					
Gln	Ser	Ser	Ser	Ser	Tyr	Asn	Ser	Ser	Leu	Ser	Ala	Val	Ser	Pro	Gln		
	450					455					460						
His	Asn	Trp	Ser	Ser	Ala	Gly	Ala	Gly	Thr	Pro	Arg	Gln	Leu	His	Pro		
465					470					475					480		
Ile	Gly	Gly	Asn	Gln	Arg	Val	Asn	Asn	Ile	Thr	Ser	Ala	Gln	Tyr	Cys		
				485					490					495			
Ser	Pro	Ser	Pro	Pro	Ala	Ala	Arg	Gln	Leu	Ala	Ala	Glu	Leu	Asp	Glu		
			500					505					510				
Leu	Arg	Arg	Asn	Gly	Asn	Glu	Gly	Ala	Asn	His	Asn	Tyr	Ser	Ser	Ala		
		515					520					525					
Ser	Leu	Pro	Arg	Gly	Val	Gly	Lys	Ala	Ser	Ser	Thr	Leu	Thr	Leu	Pro		
	530					535					540						
Ser	Lys	Lys	Leu	Ser	Val	Ala	Ser	Gly	Thr	Ser	Val	Val	Glu	Ser	Asp		
545					550					555					560		
Asp	Glu	Ile	Ala	Arg	Gly	Arg	Asn	Leu	Asn	Asn	Ala	Thr	Ser	Gln	Ser		
				565					570					575			
Asn	Leu	Lys	Asn	Phe	Ser	Arg	Glu	Arg	Thr	Arg	Ser	Ser	Leu	Arg	Asn		
			580					585					590				
Ile	Phe	Ser	Lys	Leu	Thr	Arg	Ser	Thr	Ser	Gln	Asp	Gln	Ser	Asn	Ser		
		595					600					605					
Phe	Arg	Arg	Gly	Ser	Ala	Ala	Arg	Ser	Thr	Ser	Thr	Ala	Arg	Leu	Gly		
	610					615					620						
Ser	Thr	Asn	His	Leu	Gly	Thr	Val	Ser	Lys	Arg	Pro	Pro	Leu	Ser	Gln		
625					630					635					640		
Phe	Val	Asp	Trp	Arg	Ser	Glu	Gln	Leu	Ala	Asp	Trp	Ile	Ala	Glu	Ile		
				645					650					655			
Gly	Tyr	Pro	Gln	Tyr	Met	Asn	Glu	Val	Ser	Arg	His	Val	Arg	Ser	Gly		
			660					665					670				
Arg	His	Phe	Leu	Asn	Met	Ser	Met	Asn	Glu	Tyr	Glu	Gly	Val	Leu	Asn		
		675					680					685					
Ile	Lys	Asn	Pro	Val	His	Arg	Lys	Arg	Val	Ala	Ile	Leu	Leu	Arg	Arg		
	690					695					700						
Ile	Glu	Glu	Asp	Ile	Met	Glu	Pro	Ala	Asn	Lys	Trp	Asp	Val	His	Gln		
705					710					715					720		
Thr	Leu	Arg	Trp	Leu	Asp	Asp	Ile	Gly	Leu	Pro	Gln	Tyr	Lys	Asp	Val		
				725					730					735			
Phe	Ala	Glu	Asn	Val	Val	Asp	Gly	Pro	Leu	Leu	Leu	Ser	Leu	Thr	Ala		
			740					745					750				
Asn	Asp	Ala	Val	Glu	Met	Lys	Val	Val	Asn	Ala	His	His	Tyr	Ala	Thr		
		755					760					765					
Leu	Ala	Arg	Ser	Ile	Gln	Phe	Leu	Lys	Lys	Ala	Asp	Phe	Arg	Phe	Asn		
	770					775					780						
Ala	Met	Glu	Lys	Leu	Ile	Asp	Gln	Asn	Ile	Val	Glu	Lys	Tyr	Pro	Cys		
785					790					795					800		
Pro	Asp	Val	Val	Val	Arg	Trp	Thr	His	Ser	Ala	Thr	Cys	Glu	Trp	Leu		
				805					810					815			
Arg	Lys	Ile	Asp	Leu	Ala	Glu	Phe	Thr	Gln	Asn	Leu	Leu	Phe	Ala	Gly		
			820					825					830				
Val	Pro	Gly	Ala	Leu	Met	Ile	Tyr	Glu	Pro	Ser	Phe	Thr	Ala	Glu	Ser		
		835					840					845					
Leu	Ala	Glu	Ile	Leu	Gln	Met	Pro	Pro	His	Lys	Thr	Leu	Leu	Arg	Arg		
	850					855					860						
His	Leu	Thr	Ser	His	Phe	Asn	Gln	Leu	Leu	Gly	Pro	Lys	Ile	Ile	Ala		
865					870					875					880		

Asp	Lys	Arg	Asp	Phe	Leu	Ala	Ala	Gly	Asn	Tyr	Pro	Gln	Ile	Ser	Pro
				885					890					895	
Thr	Gly	Arg	Val	Lys	Val	Val	Lys	Lys	Gly	Phe	Ser	Leu	Thr	Arg	Lys
			900					905					910		
Lys	Ala	Lys	Asn	Glu	Ile	Cys	Leu	Glu	Pro	Glu	Glu	Leu	Leu	Cys	Pro
		915					920					925			
Gln	Val	Leu	Val	His	Lys	Tyr	Pro	Thr	Gly	Ala	Gly	Asp	Asn	Ser	Ser
	930					935					940				
Phe	Glu	Ser	Ser	Asn	Val										
945					950										

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 <213> human rhinovirus 2
 <400> 70
 Val Lys Ala Glu Thr Arg Leu Asn Pro Asp Leu Gln Pro Thr Glu
 1 5 10 15

<210> 71
 <211> 24
 <212> PRT
 <213> human immunodeficiency virus type 1

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 <223> Xaa = Any Amino Acid

<400> 71
 Tyr Asn Lys Arg Lys Arg Ile His Ile Gly Pro Gly Arg Xaa Phe Tyr
 1 5 10 15
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 <223> selected from synthetic peptides derived from Homo sapiens CD52.

<400> 72
 Gly Thr Ser Ser Pro Ser Ala Asp
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<210> 73
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 <213> Mesocricetus auratus

<400> 73
 Ala Pro Lys Thr Asn Met Lys His Met Ala
 1 5 10

<210> 74
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<212> PRT
 <213> Foot-and-mouth disease virus

 <400> 74
 Tyr Thr Thr Ser Thr Arg Gly Asp Leu Ala His Val Thr Thr Thr
 1 5 10 15

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 <213> Human poliovirus 1 Mahoney

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 Cys Val Thr Ile Met Thr Val Asp Asn Pro Ala Ser Thr Thr Asn Lys
 1 5 10 15
 Asp Lys

 <210> 76
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 <223> Derived from Homo sapiens MUC1 epithelial mucin glycoprotein.

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 Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
 1 5 10

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 <210> 79
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 <223> Derived from human immunodeficiency virus 1 protease protein.

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Lys Asp Thr Asn Asn Asn Leu
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Ala Val Pro Gln Gly Gln Gly Lys Val Thr Phe Ser Gly Thr Val Val
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Asp Ala

<210> 82
<211> 53
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Pro Cys Gly Ile Asp Ala Ala Gln Ser Ala Asp Gln Ser Val Asp Phe
1 5 10 15
Gly Gln Ile Ser Lys Val Phe Leu Asp Asn Asp Gly Gln Thr Thr Pro
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Lys Ala Phe Asp Ile Lys Leu Val Asn Cys Asp Ile Thr Asn Tyr Lys
35 40 45
Lys Pro Ala Thr Gly
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<210> 83
<211> 33
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<400> 83
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1 5 10 15
Gly Gln Ala Ile Ala Ser Asp Val Ala Phe Arg Gly Asn Leu Leu Asp
20 25 30
Arg

<210> 84
<211> 37
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<400> 84
Pro Cys His Val Ser Gly Asp Ser Leu Asn Lys His Val Val Phe Lys
1 5 10 15
Thr Arg Ala Ser Arg Asp Phe Trp Tyr Pro Pro Gly Arg Ser Pro Thr
20 25 30
Glu Ser Phe Val Ile
35

<210> 85
 <211> 55
 <212> PRT
 <213> Escherichia coli

<400> 85
 Met Arg Leu Arg Phe Ser Val Pro Leu Phe Phe Phe Gly Cys Val Phe
 1 5 10 15
 Val His Gly Val Phe Ala Gly Pro Phe Pro Pro Pro Gly Met Ser Leu
 20 25 30
 Pro Glu Tyr Trp Gly Glu Glu His Val Trp Trp Asp Gly Arg Ala Ala
 35 40 45
 Phe His Gly Glu Val Val Arg
 50 55

<210> 86
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 <212> PRT
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<400> 86
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 1 5 10 15

<210> 87
 <211> 36
 <212> PRT
 <213> Escherichia coli

<400> 87
 Met Lys Lys Ile Arg Gly Leu Cys Leu Pro Val Met Leu Gly Ala Val
 1 5 10 15
 Leu Met Ser Gln His Val His Ala Ala Asp Asn Leu Thr Phe Lys Gly
 20 25 30
 Lys Leu Ile Ile
 35

<210> 88
 <211> 34
 <212> PRT
 <213> Escherichia coli

<400> 88
 Pro Ala Cys Thr Val Thr Lys Ala Glu Val Asp Trp Gly Asn Val Glu
 1 5 10 15
 Ile Gln Thr Leu Ser Pro Asp Gly Ser Arg His Gln Lys Asp Phe Ser
 20 25 30
 Val Gly

<210> 89
 <211> 31
 <212> PRT
 <213> Escherichia coli

<400> 89
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25

30

<210> 90
 <211> 39
 <212> PRT
 <213> Escherichia coli

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 20 25 30
 Thr Ile Ser Ile Ser Cys Thr
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1 5 10

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 <223> Identified from M13 bacteriophage peptide display library.

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<211> 12
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